S. HRG. 101-852

UNITED STATES COINAGE REFORM ACT OF 1989

HEARING

BEFORE THE

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

ON

S. 814

TO PROVIDE FOR THE MINTING AND CIRCULATION OF REDESIGNED ONE DOLLAR COINS SYMBOLIZING THE ANNIVERSARY OF THE DISCOVERY OF THE NEW WORLD

JUNE 20, 1990

Printed for the use of the Committee on Banking, Housing, and Urban Affairs

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UNITED STATES COINAGE REFORM ACT OF 1989

WEDNESDAY, JUNE 20, 1990

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, DC.

The committee met at 1:34 p.m., in room SD-538 of the Dirksen Senate Office Building, Senator Dixon presiding.

Present: Senators Dixon, Graham, and Garn.

OPENING STATEMENT OF SENATOR DIXON

Senator DIXON. Ladies and gentlemen, we're here today to discuss a bill which could transform the bucks in your billfold, the cash in your kitty and the coins in your change.

We meet to consider S. 814, the United States Coinage Reform Act of 1989, a bill which would mandate the circulation of a new dollar coin.

We're pleased to welcome Senator Pete Domenici, the sponsor of S. 814. And I understand Congressman Kolbe, who sponsored similar legislation in the House, is voting right now and will be with us shortly.

I'm pleased to be a cosponsor of S. 814, because I happen to think a dollar coin would be useful.

Today, we'll be hearing from the Director of the Mint at the Treasury Department, Donna Pope, who will be presenting the administration's view of this bill.

L. Nye Stevens will present the findings from the General Accounting Office's extensive study on the dollar coin. We're particularly interested in determining whether a dollar coin can be successful without eliminating the dollar bill, and in learning from our experience with the Susan B. Anthony dollar coin.

An industry panel will then address the concerns and effects of a new dollar coin and provide their two cents of advice on the penny.

I welcome all of our witnesses today, and I'd now like to especially welcome my distinguished colleague, the senior Senator from New Mexico, Pete Domenici, who is here. And may I say, Pete, that Congressman Kolbe is voting and we are expecting him shortly.

Senator Domenici, if you're ready to begin, we're delighted to hear from you, sir.

Before we begin I have a statement from Senator Sanford

OPENING STATEMENT OF SENATOR SANFORD

Senator SANFORD. Thank you Mr. Chariman, and I would like to thank our distinguished panel of witnesses. Currently, there is a renewed interest in minting a new U.S. dollar coin. As the U.S.

enters a new decade maintaining its position as the world's largest economic system, I believe that the time is right for Congress to examine more closely the enactment of a properly executed U.S. dollar coin program.

Along with my colleagues, I was dismayed by the failure of the Susan B. Anthony dollar coin. It is imperative that we use caution when considering any change in our monetary system, such as this dollar coin. As a sponsor of this legislation, however, I believe some of the provisions in this bill before us may overcome the problems that led to the failure of the Anthony coin. Its unpopularity was mainly a result of poor promotional efforts and its close resemblance to the quarter. With this new dollar coin, however, the\GAO estimates that the Government could save over $318 million annually in present value dollars if the one-dollar note was replaced. This estimate includes savings from coin production and processing, and the interest saved from seigniorage. Wide acceptance and use of the dollar coin would be imperative, however, for these savings to be realized

Included in S. 814, there is also a proposal to conduct a study on the advisability of eventually phasing out the penny and half dollar. In considering this legislation, I have great reservations. There are no comparable arguments for the elimination of these coins. Both the penny and half-dollar are profitable to the Government in that their face value exceeds their production and distribution costs. Eliminating the penny would result in merchants rounding prices up to the nearest 5-cents, which could result in an effective 2-cent inflation rate. The effects that this legislation would have on low-income Americans greatly concerns me. Undoubtedly, it would be these people who would suffer most from the elimination of the penny. Low-income consumers must spend pennies more often, as they by necessity make a large number of small purchases, and eliminating the penny would have detrimental effects on their livelihood.

I think that it is essential for this committee to examine these options and try to understand what they could mean for our Government and the American people. Introducing a dollar coin may have a sound basis; however, eliminating the penny at the same time may cause the American people to fear instability in our economic system.

We must move carefully on this legislation realizing that it is the public's acceptance of the dollar coin which will determine its success. As we move into a more modern decade, legislation that will work to increase efficiency deserves consideration. I hope that from this hearing we can come to realize what steps must be taken to improve our current monetary system while at the same time, ensuring the American people stability in our economic system.

Thank you Mr. Chairman.

[Text of S. 814 follows:]

II

101ST CONGRESS
1ST SESSION

S. 814

To provide for the minting and circulation of one dollar coins, and for other purposes.

IN THE SENATE OF THE UNITED STATES

APRIL 17 (legislative day, JANUARY 3), 1989

Mr. DOMENICI (for himself, Mr. BINGAMAN, Mr. BOND, Mr. GRASSLEY, Mr. SIMON, and Mr. DECONCINI) introduced the following bill; which was read twice and referred to the Committee on Banking, Housing, and Urban Affairs

---

A BILL

To provide for the minting and circulation of one dollar coins, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "United States Coinage Reform Act of 1989".

SEC. 2. ONE DOLLAR COINS.

(a) COLOR AND CONTENT.—Section 5112(b) of title 31, United States Code, is amended by inserting after the fourth sentence, the following: "The dollar coins authorized under

subsection (a)(1) are gold in color, have a copper content of at least 90 percent from natural deposits located in the United States or in a territory or possession of the United States, and are minted and fabricated in the United States.".

(b) CHRISTOPHER COLUMBUS DOLLAR COIN.—Section 5112(d)(1) of title 31, United States Code, is amended by striking out the sixth sentence and inserting in lieu thereof the following: "The obverse side of the dollar shall have a design symbolizing the 500th anniversary of the discovery of the New World by Christopher Columbus.".

(c) EFFECTIVE DATE.—Not later than 18 months after the date of enactment of this Act, the Secretary of the Treasury shall place into circulation one dollar coins authorized by section 5112(a)(1) of title 31, United States Code, in accordance with the amendment made by subsections (a) and (b).

SEC. 3. STUDY OF PHASING OUT OF ONE-CENT COINS.

The Secretary of the Treasury shall conduct a study to determine the advisability of phasing out production of the one-cent, and 50-cent coins and of rounding final cash sales to the nearest 5 cents. The Secretary shall report the results of such study to the Congress not later than 6 months after the date of enactment of this Act.

STATEMENT OF PETE V. DOMENICI, A U.S. SENATOR FROM THE STATE OF NEW MEXICO

Senator DOMENICI. Thank you very much, Mr. Chairman.

I am ready. I appreciate your taking me first. I think you know, you had some very important business and you had to come here instead of that. But I am due at the economic summit in about 35 or 40 minutes. We may indeed have the first genuine proposal by the administration. I'm not going to take a long time, because I think you're going to hear from a lot of people with reference to this issue.

But I would like to share with you the background from my standpoint. I want to tell you right up front, Mr. Chairman, and members of the committee, I come from a State that has copper mines and copper workers.

This was rather interesting to me from the standpoint as first presented because copper would be the principal ingredient.

But I want to tell you, in all honesty, that the copper industry is doing great. I'm not here because this is parochial to my State. I'm delighted that we will use more copper. But, frankly, I have become more and more convinced that the time has come for the U.S. to do what she has always done—and that is to accommodate the needs of the people and what happens in the marketplace and the everyday activity of Americans.

I am not going to go through the history of the evolution of coins. But I will tell you that we have a penny and a dime and a quarter because we wanted to accommodate to small transactions. And I must tell you that the dollar bill was not when it came into existence considered to be a small transaction exchange in terms of money.

But I must tell you, it is now. And I don't think that's bad; that's just real.

Now, for starters, I hope the Treasury Department and the administration will face up to reality and be a little courageous. We made a mistake with the Susan B. Anthony coin. I don't know why that mistake should keep us hostage forever to the need for a dollar coin.

Frankly, I want to show you why the Susan B. Anthony failed and why this new coin won't. You don't have to—the televisions with their lenses can see that those look very much alike.

But, you see, this one is not going to look like it. I don't see how in the world anybody can confuse these two, and I don't see how they can confuse these two, the American quarter and the new dollar.

Now, having said that, let me tell you four or five things that I hope this hearing will help get out to the American people.

I will not discuss in detail the accommodation and convenience of this new coin to millions of Americans who must use quarters today because coins are required. Nor will I burden you with what happens to all these people who have to change $1 bills to get quarters to put in machines. But it has now reached the millions.

That is an accommodation, a convenience, that just should be realized and accommodated to. You will hear that because that is an interest.

Interestingly enough, the blind people like this, too, because if you're wondering whether they will understand it versus a paper dollar bill, it is much like the Canadian loon, which I have in front of me. It is not perfectly circular, but can respond to touch because of the way its exterior circle is made.

But aside from that, what I have here is just a little, tiny bit of what happens to most dollars minted in the U.S. within 16 months after they're minted.

They're shredded like this and thrown away. The average life of the American dollar bill is now 16 months, which, surely somebody will look in their pocket and say, what's wrong with that, Senator? I have one that seems like it was made 10 years ago.

That's right. But what I'm telling you is the numbers are for real. They just destroy themselves because of the way that we use them, and they end up here. And it's interesting that that isn't free. We can forget about what we have to do in the dumps of the country with this material, but it costs about 2.6 cents for each of these $1 bills, and we throw all that away.

And if you minted coins, they will last 30 years and the cost is dramatically less. In fact, normally, I worry about the GAO studying something because I always think they're looking for an answer in advance. But I'm delighted that they did their study because they have great credibility.

And they contend that we would save $318 million a year once we have this coin in existence, as compared with the paper dollar, and that's assuming, Mr. Chairman and members of the committee, that the American people will be so receptive to this, that we will eventually have few or none of the current paper dollar bills.

I would also say for those who worry about coins versus bills, we're not doing away with the $2 bill. It isn't used very much. In the scheme of American history, it might become a little bit more popular and substitute for and supplement coins of this type that are a dollar.

Having said that, it seems to me that only one last thought deserves mentioning to you who have to decide the fate of this bill.

First, are we in the vanguard of leadership on this issue? Are we going to do something that will put us right out there on the cutting edge of satisfying the needs of our people in a modern economy?

Well, the answer is, obviously, no, because all our industrial partners have decided—Canada, England, Japan—they all have had $1 bills, or their counterparts. They have long since arrived at what we are talking about here today. And all of them have a coin of one sort or another that substitutes for just plain producing money that is getting thrown away. They decided that they would produce a loon, and Japan has its counterpart.

And so, for those who are timid and want to make sure that we're doing the right thing, we have a lot of good examples of the world marketplace and industrial partners, recognizing their citizens' needs and the concept of supplying coins for small transactions.

And what some of them don't have that we have is such an enormous use of coinage in machines—be it transportation, as it is in your State, or all of the different vending machines. And ultimate-

ly, we will save a lot of money, increase the productivity of that service industry, if we do this instead of standing in front of the Metro machine trying to get one of those paper dollars to work.

You all have tried that. I was going to bring one of those machines in here and pull out a dollar bill and say, see, it doesn't work. But, then, I thought, it's just my luck. For the first time ever, it would.

On the other hand, I was going to say, let's try three, and I'd bet the chairman two out of three it wouldn't work the first time.

Having said that, there are environmental issues that ought to be discussed. How many thousands of tons of this are we producing a year to throw away, and it's pretty toxic. Many, many. Three thousand tons a year.

In the scheme of things, I don't want to exaggerate it, we create a lot of waste. That's not the biggest paper waste around. But it's pretty big.

So, in summary, I don't know whether the percentage of copper we stated is technically right. We thought it was 90. Whatever the technical people say is right, we ought to do.

I believe copper is the best thing, the best metal we should put in it, but, frankly, let me tell you. We use zinc in other coins, and the like. I come here not with copper in mind, but just being practical with the American people and accommodating them and letting them be the deciders.

They are a very practical people, and they are going to opt, once this is out there, for this and not history.

We love history, but we don't have to live with it every day and carry it around and throw it away for the sake of a legacy.

With that, I thank you and I thank Senator Garn for your attention, and most important, I thank you, Mr. Chairman, for your cosponsorship and for having a hearing on this bill.

[The complete prepared statement of Senator Domenici follows:]

SENATOR PETE V. DOMENICI
STATEMENT
S. 814
THE SENATE BANKING COMMITTEE
1:30 P.M., WEDNESDAY, JUNE 20, 1990

Mr. Chairman, Members of the Committee. It is a great honor to testify this afternoon to urge your approval of S. 814, the United States Coinage Reform Act. This legislation offers two great advantages to every American: Convenience and cost savings.

S. 814 authorizes the minting of a gold-colored Christopher Columbus $1 coin to commemorate Christopher Columbus' discovery of the New World, which we will celebrate in 1992. Turn the coin over and it could honor modern space exploration.

I'm proud to say, Mr. Chairman, that 28 of our colleagues have joined me in sponsoring the bill.

We are convinced that it is time to update our coinage to reflect the changes in American commerce. Due to inflation, the $1 bill today buys about what a quarter purchased in 1950.

So the best reason for passage of S. 814 is one word:

Convenience.

A $1 coin will be convenient for bus riders, for drivers parking at a meter, for those using vending machines, for the visually handicapped, for those making long distance calls from pay phones, for those buying Sunday papers from street corner boxes, and countless other purposes.

Think of the problem you would face now if you decided, in most cities, to take a bus downtown, purchase a soda and snack foods at a vending machine, and then take the bus home.

You would need a roll of quarters, or have to spend much of the trip in constant search for change.

Then consider the alternative if you had a few $1 coins in your pocket or purse.

And I should point out that this bill has impact right here in the operations of the United States Senate. If you happen to be working at the Senate late into the evening or on a Sunday, you will discover that most vending machines here accept only coins, and you might be very inconvenienced.

Of course, machines can be adjusted to accept $1 bills. But it costs $2,400 to refit a vending machine to accept bills. By contrast, it costs only $400 to refit a machine to

accept a $1 coin. Ultimately, it is the consumer who bears that cost through higher prices.

Some jurisdictions, of course, have already made the investment. The Albuquerque Sun Tran bus system spent $481,500 to refit our buses to accept $1 bills. But the system still carries a considerable expense for additional labor to sort and stack the dollar bills. Coins, by contrast, can be reliably and inexpensively counted by machine.

Clearly an efficient and convenient society requires this change.

Another benefit of the $1 coin would come to those among us who are visually handicapped. A $1 coin that's different to the touch from other coins would surely improve the ease of a purchase, and provide protetction from unscrupulous cashiers.

Then there is the cost savings to the American taxpayer.

Every year, the U.S. government prints 3.2 billion $1 bills, at a cost per bill of 2.6 cents. These bills have an average life of 16 months. At the end of that period, the bills are returned to the government, taken to a special facility, shredded, and dumped in a landfill.

By contrast, the $1 coin would cost 6.0 cents to mint, but would be expected to remain in circulation for 20 years or more.

The GAO has estimated that the government could realize a net annual savings of $318 million from the shift to a $1 coin.

Of course, there are critics of the Coinage Reform Act, who have cited potential problems with the $1 coin.

Representatives of printing interests say this legislation will be detrimental. But I would point out that my bill does not call for the elimination of the $1 bill. And decreased demand for the $1 bill would be offset, to a degree, by increased demand for the $2 bill.

Personally, I am convinced that opposition to the $1 coin stems primarily from a basic reluctance to change.

Some critics cite the example of the Susan B. Anthony dollar coin. I do not believe the mistakes of the Anthony coin should inhibit future coinage reform. We can use those mistakes to guide us to a successful and publically acceptable $1 coin, with all it obvious benefits.

The obvious convenience --- and special promotion honoring the 500th anniversary of Christopher Columbus' discovery of the New World --- will aid in its acceptance this time.

And we have learned a great deal from the basic problem afflicting the Anthony dollar, its size and color, which were so similar to the quarter.

I would remind the committee that S. 814 requires a gold-colored coin of distinctive size.

Seven other nations have successfully introduced $1 coins, or their equivalent. They learned from our mistakes with the Anthony dollar that the new coin must be notably different from existing coins.

In the summer of 1988 Canada introduced an 11-sided, smoothrimmed, gold-colored dollar. They are handsome coins, distinguishable by color and texture.

I have been in contact with Maurice Lafontaine, Master and President of the Royal Canadian Mint. The primary objective of Canada's coinage reform was to meet the requirements for efficient trade and commerce. The "loonie", as these coins are known because they carry the portrait of a loon, has enabled Canada to reach these goals.

Mr. Chairman, I ask permission to place in the hearing record a copy of correspondence with Mr. Lafontaine that illustrates Canada's success.

And Mr. Chairman, I believe the merits of S. 814 are clear, making this the time for introduction of a gold-colored $1 coin.

I would also point out that our proposal directs the Treasury to put the new coin into circulation within 18 months. And it requires a study of the advisability of phasing out the production of the penny and the 50-cent piece, with final cash sales to be rounded to the nearest five cents.

While my bill does not require it, I would expect a lot of people to argue that we should simply get rid of the $1 bill in favor of the new coin. That idea has merit and is worth your careful consideration.

While I've always been in favor of letting the market regulate such issues, I believe that as the Banking Committee continues to evaluate various proposals, the experts will have an opportunity to highlight the pros and cons of withdrawing the $1 bill.

In conclusion, Mr. Chairman and Members of the Committee, I am convinced that putting a $1 coin in our pockets would be a great convenience, and it would prove a significant savings to the taxpayer, savings savings that would add up to almost $10 billion over the life of a batch of gold colored dollars.

I would ask that a letter from the Canadian Mint be included in the record following my remarks.

Thank you very much.

Royal Canadian Mint
Monnaie royale canadienne

May 2, 1990

Senator Pete V. Domenici
R-New Mexico
United States Senate
Washington, D.C.
20510
U.S.A.

Dear Senator Domenici:

I acknowledge with thanks your letter of April 6, 1990 and for the interest you have taken in learning more about Canada's one dollar coin.

We have answered all of the questions raised in your correspondence and hope that the attached will meet with your satisfaction.

Yours sincerely,

M.A.J. Lafontaine
Master and President
Royal Canadian Mint

MAJ/ll

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Q1 How many $1 notes were in circulation when the $1 coin was first introduced? How many $1 notes have been withdrawn from circulation? How many $1 coins have been minted to date?

A a) As of end of June 1987, the Bank of Canada reported that there were 322.4 million dollar notes in circulation.

In June 1987, month in which the coin was introduced, there were 29.5 million dollar coins ordered by financial institutions.

A b) As of end of February 1990, the Bank of Canada has reported that there are 184.1 million dollar notes still in circulation.

A c) To the end of February 1990, there have been 138.3 million notes withdrawn from circulation. In the same time period, there have been 478.6 million dollar coins issued in response to a demand from the financial institutions.

A d) The demand for the dollar coin accelerated in the period July 1, 1989 to December 31, 1989 which was the period when the dollar note was no longer being issued by the Bank of Canada.

A e) It should be noted that the Bank of Canada expected dollar notes to be withdrawn from circulation at approximately 30 million per month which was estimated to be the notes' average useful life.

However, data from the Bank of Canada confirms that the rate of withdrawal from circulation is slowing.

For example, in July 1989, there were 31.2 million notes withdrawn. In February 1990, there were only 3.8 million notes withdrawn. It should be emphasized that dollar notes were not demonetized but were being withdrawn as they became worn or mutilated.

Q2 Did the RCM monitor public opinion throughout the introduction of the $1 coin? How would you characterize public opinion before introduction, at the time of introduction, and current public opinion?

A Yes, the RCM conducted seven public opinion polls, with the first in September 1984 and the last in December 1988. In addition, the RCM commissioned a survey of the retail sector in December 1988. The findings have, in essence, been consistent: one third for the coin, one third indifferent and one third against. It is also interesting to note that between 10 to 15% of the population do not favour coins of any denomination.

Q3 In reviewing the phase-in period for the $1 coin, was it too short, too long, or about right? In your opinion, could the $1 note have circulated together indefinitely with the $1 coin? Was removing the $1 note critical to the success of the $1 coin?

A The government made a policy decision to phase in the coin. The experience in other countries, and now Canada, has clearly demonstrated that the $1 note and the $1 coin cannot co-exist. As well, circulating both the one dollar coin and the one dollar banknote would have been too costly for financial institutions and retailers. Removing the $1 note was therefore critical to the success of the $1 coin.

Q4. Has the RCM fulfilled its objectives with the $1 coin?

A The objectives of the RCM are to meet the needs of its coin users: people who use public transit, vending machines , parking meters or make coin based purchases as well as the visually impaired expressed a need for this coin to facilitate trade. Therefore, the RCM has fulfilled its objectives and mandate. As well, the coin will serve to generate some $175 million in tax savings over the next twenty years.

Q5. **When was the "loon" first introduced, when were the last $1 notes printed, when were the $1 notes last issued, and when was transition to the coin completed? What is the current ratio of $1 notes in circulation?**

A The one dollar coin was launched on 30 June 1987. The last $1 notes were printed on 20 April 1989. The last $1 notes were issued on 30 June 1989. The transition to the coins was complete, in our opinion by the end of the summer of 1989. The ratio of coins to notes is 1.5 based on notes in circulation at 30 June 1987 and coins in circulation at 28 February 1990.

Senator DIXON. Well, let me say to the distinguished senior Senator from New Mexico that, first of all, as chairman of the subcommittee, I thank him for what I consider to be a very excellent statement in support of S. 814.

I have been asked by the distinguished chairman of the committee, who has great interest in this subject matter, to apologize for the fact that Senator Riegle can't be here. He's on the floor right now. As you know, we have the housing bill up, which is a product of this committee. He apologizes to you and wants you to know of his interest in looking at a mark-up on this bill this year. And I'm delighted to see that the distinguished ranking member of the committee, Senator Garn, is here. Perhaps he has a statement.

OPENING STATEMENT OF SENATOR GARN

Senator GARN. Well, thank you, Mr. Chairman. The housing bill is on the floor and we're debating banking issues, however. Senator Metzenbaum has his check-cashing bill up, which has nothing to do with the housing bill, but, nevertheless, that's the nature of the Senate. So I will have to go back soon, too, to monitor what is going on over there.

I would say to my colleague from New Mexico, he is absolutely right about the Susan B. Anthony. Unfortunately, I've been around long enough to have been on the committee at that time—and I can remember sitting not in this seat. It was before that. I was down the seniority list a little bit—making the very same points and not able to convince people that the Susan B. Anthony would fail, because it seemed obvious to me that it would be mistaken for a quarter and simply would not be utilized.

And I offered several amendments. All of them failed except one. The only one that succeeded was they had charts up here, big graphics of the front and the obverse side of the Susan B. Anthony. I looked at the reverse side. It had some artist's design of a new eagle. It looked like a sick chicken to me, and I made that comment. I said, you're putting a sick chicken on the back of the Susan B. Anthony.

So I offered an amendment to have the soaring eagle off the back of the Eisenhower dollar put on it. So at least I had something to do with improving the backside of the Susan B. Anthony. It was not enough to make it a success.

But I think as we look at the devaluation of the dollar, when you and I were young, and Senator Domenici and I are virtually the same age, and former mayors and so on, I'm sure he can remember when our mothers would give us a dollar, and it seemed like all the money in the world. A whole dollar, because you usually got nickels or dimes.

Well, I give my kids a dollar today and they look at me like, you skinflint. If it isn't a ten, it's not worth giving.

So, obviously, things have changed rather dramatically. The use of vending machines and car washes and all of that sort of thing. The real difficulty, however, is convincing the American people because most of my mail is in opposition. I think it's habit and history, as you say. They're used to having dollar bills, and so you simply don't want to change.

My father never thought the $5 gold piece should have left, either.

So there's a big education job to be done, and if we go ahead and do this, I think we not only have to recognize that people need to understand the dramatic changes that have taken place and how it would save an enormous amount of money, as well as be convenient. Maybe more importantly, I think we have to couple with it that the dollar bill would have to be removed from circulation.

I simply don't think it would work. No matter how well we design it, different color, different shape, or whatever, how identifiable it is, I think that we would have to phase out the dollar bill as well, in addition to making it as unique and different as possible, so that there wouldn't be the mistakes repeated of the Susan B. Anthony.

But I do appreciate your testimony and look forward to the testimony of the other witnesses.

Senator DOMENICI. Mr. Chairman, I might make just two additional comments.

My bill, as you know, does not mandate the removal of the $1 bill. Frankly, that's something for you all to deliberate. The House has a different view in its bill.

Two other points.

I did mention that we weren't, for our Treasury Department and our people at the mint, that they didn't have to be terribly visionary, and perhaps they could gather up a little bit of courage. But I think, nonetheless, we ought to make this coin visionary, and I think we ought to put Christopher Columbus on it. I think it's the right time.

I gather, knowing the way he acted, if he were here, he'd vote aye. He could really see out over the edge.

Second, I won't count on the $318 million in savings as we put the budget summit together. But I do commit to you that if you do this, you will save that much. And for those who are always in need of some good cause, we will not use it up in the budget and it will be around for somebody to use for a better cause than the dumps.

Thank you very much, Mr. Chairman.

Senator DIXON. Thank you, Senator.

I understand Mr. Kolbe is not here yet. We'll go ahead with the next panel, and Mr. Kolbe is welcome to come in as soon as he is able to take care of his duties in the house.

Donna Pope, Director of the Mint, Department of the Treasury, and L. Nye Stevens, Director, Government Business Operations Issue Group, General Accounting Office.

Director Pope, we're delighted to have you here. You may proceed.

STATEMENT OF DONNA POPE, DIRECTOR OF THE MINT, DEPARTMENT OF TREASURY, WASHINGTON, DC

Ms. POPE. Thank you, Mr. Chairman, Senator Garn.

We brought with us—it seems like it's show 'n tell—this is one of our 212,000-plus bags of Susan B. Anthonys that we have in storage on about 5,200 square feet, 10 feet high, at our mint facilities.

And I bring this and I tell you that, not because we feel as though we're hostage to history or any sort of mistake, but simply so that all parties concerned with looking at this issue are cognizant of all of the ramifications that there are and to be sure that the same mistake or mistakes are not made again. And I'll spare you the quote of learning from history.

I'm very pleased to have received the invitation to present the views of the Treasury Department with regard to the proposed dollar coin legislation, S. 814.

Supporters of the proposal have attracted attention to the cause by citing the cost savings and other benefits which would be realized if a one-dollar coin successfully replaced the dollar bill in our Nation's commerce.

While S. 814 does not call for the elimination of the dollar bill, the experience in every foreign country which has introduced a high denomination coin has been that the circulation of the coin must be forced by eliminating the corresponding note.

TREASURY POSITION

The Treasury Department does not endorse either elimination of the $1 bill or the introduction of a one-dollar coin. While I will have some remarks later in my statement concerning the projected savings claimed by proponents, and the General Accounting Office, the Treasury Department believes that public need and acceptance are the critically important issues and that a change from the dollar bill to a dollar coin should not be made unless there is a clear indication that the general public favors it.

However, just the opposite is true. Americans prefer dollar bills over coins. This position is supported by the modern-day attempts to introduce dollar coins, the Eisenhower dollar in 1971, and the ill-fated Susan B. in 1979. Both ultimately failed because the preferred and convenient dollar bill was available. Of the $857 million Anthony dollars produced, approximately $425 million remain in mint and Federal Reserve bank vaults.

In addition, current research confirms the public's preference for the dollar bill. In a recent GAO study commissioned by the House Subcommittee on Consumer Affairs and Coinage, interviews and focus groups conducted by GAO found that the American public overwhelmingly opposes abolishing the dollar bill and replacing it with a dollar coin. In addition, a Gallup poll conducted in April of this year showed that 59 percent of Americans oppose legislation creating a dollar coin. Only 15 percent favor the elimination of the dollar bill and its replacement with a coin.

Apparently, machines like coins, but people like bills.

As I stated, the preference for bills over coins has been the experience by foreign governments. The foreign mints that we and GAO surveyed stated that the key ingredient in achieving circulation of a high denomination coin is the elimination of the corresponding paper currency.

The element of choice must be removed in order for a coin to succeed. However, I want to reemphasize that the Treasury Department does not endorse the elimination of the dollar bill.

While foreign governments were able to force circulation of coins by eliminating the paper currency and weathering the storms of protest which followed, most of those countries have parliamentary forms of government which make it easier to sustain an unpopular decision.

The Australian mint director, reporting on public reaction to the introduction of the Australian one-dollar coin, made the following remarks.

> At the time, public reaction to the one-dollar coin seemed rather extreme to the people in the mint. It was reported to be ugly, cheap-looking, too small, too large, too thick, too thin, brassy, and far too easily confused with the ten-cent cupronickel coin. This latter fault was going to be a major problem for milkmen and people in dimly lit restaurants. The coin was seen as another good example of the incompetence of the mint, the public service, and the government.

There are a number of factors which should be considered by Congress if a new dollar coin is to be mandated. And among those factors are the strong differences of opinion among affected groups on the size, color, and composition of the dollar coin. The concerns that have been expressed by the banking industry regarding the increased cost which would be imposed on the private sector as a result of a dollar coin. And, as GAO points out, the necessity for sustained agreement between the Congress and the administration to eliminate the dollar bill over the transition period in the face of negative public reaction.

Senator Dixon, you've asked the Treasury Department to address certain specific questions concerning the new dollar coin. Attached to my statement submitted for the record are answers to these questions which go into far greater detail than time permits now, but I would like to note some of the highlights.

ELIMINATION OF THE DOLLAR BILL

Now, let me first point out that because foreign countries, GAO, proponents such as the Coin Coalition, the Treasury Department, and we heard from Senator Garn, all agree that, for the coin to be successful, the dollar bill must be eliminated, all of our responses are based on the assumption that production of the dollar bill would be terminated.

Regardless of the color, size, and other technical aspects of the dollar coin, the public will not use it unless the dollar bill is eliminated. Senator Garn is absolutely right on that point.

The mint would need approximately 30 months from the time of the bill's enactment to the commencement of production. That's essential because we will be dealing with a new alloy that will have to be researched and tested and new production equipment procured.

It's estimated that approximately 4.9 billion dollar bills are currently in circulation, with 3.2 billion dollar bills to be produced in 1990.

If Congress mandates the dollar coin, the mint does have adequate facility space to produce sufficient dollar coins to meet demand. But some new equipment costing approximately $2.3 million will be required, as will some additional minimal staff.

If production at a 2-billion coin level is needed, the mint will be required to react very quickly and purchase new die-making equipment and hire even more staff.

The current bill prescribes a dollar coin gold in color with an overall content of not less than 90 percent copper. And as Senator Domenici has acknowledged, it also specifies the clad coin which has two outer layers of 75-percent copper and 25-percent nickel, with an inner core of copper. Requiring that particular clad coin specification forces the outer level actually to be silver, like the nickel, the dime, the quarter, and the Susan B. Anthony.

At present, the mint is not aware of any alloy available for gold-colored coinage which would meet the 90-percent copper requirement and also satisfy all of the desirable characteristics of a dollar coin.

While we do not oppose the coin being gold-colored, we do ask that the Secretary of the Treasury be allowed to choose the alloy content.

The cost of manufacturing will depend on the cost of metal and on the alloy used, and on whether a homogenous, clad or a plated dollar is produced. For example, the Canadian loon dollar, which is composed of a nickel core plated with a copper/tin alloy, cost nine cents to produce when it was first introduced. But we also understand that the cost rose to about 20 cents during a period of rising nickel prices.

Assuming the U.S. dollar coin was at least 80-percent copper, costs could range from 4 cents to 10 cents at current metal prices.

DESIGN

As far as the design goes, as proposed in the legislation, the design for the obverse would symbolize the 500th anniversary of the discovery of the New World by Christopher Columbus.

Now, there is other legislation currently before Congress proposing to honor Christopher Columbus on a commemorative coin. So perhaps you might think it more appropriate to choose another subject.

Last, and most importantly, and I do want to emphasize most importantly, we turn to the cost savings that may be realized by using dollar coins instead of dollar bills. And I say most importantly, particularly with all the conversations recently about the budget summit.

Proponents claimed that the dollar coin would result in an annual Government savings of $120 million, while GAO's study estimated $318 million per year could be saved if the coin successfully replaces the dollar bill in circulation.

The Treasury Department agrees that if a dollar coin successfully circulates, there will be cost savings. But since there are so many unknowns, such as demand, the use of the $2 bill, and metal costs, predicting cost savings with confidence is very difficult.

We must also remember that projected savings are not immediate in nature. GAO's analysis indicated an average annual savings of $318 million over a 30-year period.

Now, at first glance, one might assume that this amount would be saved in the first year. However, in GAO's analysis, and I hope

I'm not stealing all of your thunder, Government costs would actually increase by $80 million during the first year of dollar coin production. Savings would be about $13 million in the second year.

The stated savings level of $318 million would not be reached until 13 years after production of the coin began. Thus, the dollar coin would not provide any immediate deficit reduction.

Interestingly, GAO's projected sources of savings to the Government don't match the projections given by proponents of the dollar coin. While the proponents claim that the savings result mainly from the longer lifespan of the dollar coin, the GAO analysis shows that only $41 million of the $318 million average annual savings results from reduction in production and processing costs.

The bulk of the savings results from seigniorage generated from the production of coins.

In addition, GAO's figures were based on the assumption that two one-dollar coins would be required to replace each note currently in circulation and that the mint would produce two billion coins per year during the 5-year conversion period.

Senator DIXON. Pardon me, Director. Will you shortly conclude?

Ms. POPE. Yes, very shortly.

Senator DIXON. I thank you very much.

Ms. POPE. Sorry. If GAO has overestimated demand for the coin, then the projected savings would be reduced accordingly.

And finally, we do need to know that the projected savings figures apply strictly to the Government. Certain handling and processing costs now borne by the Government would be shifted to the private sector if the dollar bill is replaced by a coin. And there's been no estimate of the overall cost impact on the proposal on the private sector. And, of course, in most cases, the additional cost to the private sector would be passed on to the consumer.

Thank you very much for your indulgence.

[The complete prepared statement of Donna Pope follows:]

STATEMENT BY THE HONORABLE DONNA POPE

DIRECTOR, UNITED STATES MINT

BEFORE THE SENATE BANKING COMMITTEE

June 20, 1990

Good afternoon. Thank you for your invitation to present the views of the Treasury Department with regard to the proposed dollar coin legislation, S. 814.

Supporters of this proposal have attracted attention to their cause by citing the cost savings and other benefits which would be realized if a one dollar coin successfully replaced the dollar bill in our Nation's commerce. While S. 814 does not call for the elimination of the dollar bill, the experience in every foreign country which has introduced a high denomination coin has been that circulation of the coin must be forced by eliminating the corresponding note. The Treasury Department does not endorse either the elimination of the one dollar bill or the introduction of a one dollar coin.

While I will have some remarks later in my statement concerning the projected savings claimed by proponents and the General Accounting Office, the Treasury Department believes that public need and acceptance are the critically important issues, and that a change from the dollar bill to a dollar coin should not be made unless there is a clear indication that the general public favors it.

Just the opposite is true. Americans prefer dollar bills over coins. This position is supported by modern day attempts to introduce dollar coins, the Eisenhower dollar in 1971 and the ill-fated Susan B. Anthony coin in 1979. Both ultimately failed because the preferred and convenient dollar bill was available. Of the 857 million Anthony dollars produced, approximately 425 million remain in Mint and Federal Reserve bank vaults.

Current research confirms the public's preference for the dollar bill. In a recent General Accounting Office study commissioned by the House Subcommittee on Consumer Affairs and Coinage, interviews and focus groups conducted by GAO found that the American public overwhelmingly opposes abolishing the dollar bill and replacing it with a dollar coin. In addition, a Gallup poll conducted in April of this year showed that 59% of Americans oppose legislation creating a dollar coin. Only 15% favor the elimination of the dollar bill and its replacement with a coin. Apparently, machines like coins; people like bills.

As I stated, the preference for bills over coins has also been experienced by foreign governments. Foreign mints that we (and GAO) surveyed stated that the key ingredient in achieving circulation of a high denomination coin is the elimination of the corresponding paper currency. The element of choice must be removed for a coin to succeed. However, I want to reemphasize that the Treasury Department does not endorse the elimination

of the dollar bill. While foreign governments were able to force circulation of coins by eliminating the paper currency and weathering the storms of protest which followed, most of these countries have parliamentary forms of government which make it easier to sustain an unpopular decision.

The Australian Mint Director, reporting on public reaction to the introduction of the Australian one dollar coin, made the following remarks:

> "At the time, public reaction to the one dollar coin seemed rather extreme to the people in the Mint. It was reported to be ugly, cheap looking, too small, too large, too thick, too thin, "brassy" and far too easily confused with the ten cent cupronickel coin. This latter fault was going to be a major problem for milkmen and people in dimly lit restaurants. The coin was seen as another good example of the incompetence of the Mint, the Public Service, and the Government."

There are a number of factors which should be considered by the Congress if a new dollar coin is to be mandated. Among these factors are:

-- The strong differences of opinion among affected groups on the size, color and composition of a dollar coin.

-- The concerns expressed by the banking industry regarding the increased costs which would be imposed on the private sector as a result of a dollar coin.

-- And, as GAO points out, the necessity for a sustained agreement between the Congress and the Administration to eliminate the dollar bill over the transition period in the face of negative public reaction.

The Committee has also asked the Treasury Department to address certain specific questions concerning the new dollar coin. Attached to my statement submitted for the record are answers to these questions which go into greater detail than time permits now. However, I will note some of the highlights. Let me first point out that because foreign countries, GAO, proponents such as the Coin Coalition, and the Treasury Department all agree that for the coin to be successful the dollar bill must be eliminated, all of our responses are based on the assumption that production of the dollar bill would be terminated. Regardless of the color, size, and other technical aspects of the dollar coin, the public will not use it unless the dollar bill is eliminated.

-- Time for Implementation. The Mint needs at least thirty months from the time of the bill's enactment to the commencement of production. This is essential, since a new alloy will have to be researched and tested, and new production equipment procured.

-- Production. It is estimated that as of December 31, 1989, there were approximately 4.9 billion dollar bills in circulation, with 3.2 billion dollar bills to be produced in FY 1990. If Congress mandates a dollar coin, the Mint has adequate

facility space to produce sufficient dollar coins to meet demand, but some new equipment, costing approximately $2.3 million will be required, as will some minimal additional staff. If production at a two billion dollar coin level is needed, the Mint will be required to react quickly and purchase new die making equipment and hire more staff.

-- Alloy. The current bill prescribes a dollar coin gold in color with an overall content of not less than 90% copper. Yet it also specifies a clad coin which has two outer layers of 75% copper, 25% nickel, and an inner layer of copper. Requiring this specific clad coin specification forces the outer layer of the dollar coin to be silver colored, like the dime, quarter, and Susan B. Anthony dollar coins. At present, the Mint is not aware of any alloy available for gold-colored coinage which would meet the 90% copper requirement and satisfy all of the desirable characteristics of a dollar coin. While we do not oppose the concept of a gold-colored coin, we ask that the Secretary of the Treasury be allowed to choose its alloy content.

-- Cost. The cost of manufacturing will depend on the cost of metal and on the alloy used, and on whether a homogeneous, clad or plated dollar is produced. For example, the Canadian Loon dollar, which is composed of a nickel core plated with a copper-tin alloy, cost 9 cents to produce when it was first introduced, but we understand its cost rose to 20 cents during a period of rising nickel prices. Assuming the U.S. dollar coin is at least 80% copper, costs could range from 4 cents to 10 cents per coin at

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current metal prices.

-- Design. As proposed, the design for the obverse of the dollar coin would symbolize the 500th anniversary of the discovery of the New World by Christopher Columbus. Since other legislation currently before Congress proposes honoring Christopher Columbus on commemorative coins, it may be more appropriate to choose another subject.

-- Cost Savings. Lastly, and most importantly, we turn to the cost savings that may be realized by using dollar coins instead of dollar bills. Proponents claim that the dollar coin would result in annual Government savings of $120 million, while GAO's study estimated $318 million per year could be saved if the coin successfully replaces the dollar bill in circulation. The Treasury Department agrees that if the dollar coin successfully circulates, there will be cost savings. But since there are a great many unknowns, such as demand, use of the two dollar bill, and metal costs, predicting cost savings with confidence is difficult.

However, it must be remembered that projected savings are not immediate in nature. GAO's analysis indicated an average annual saving of $318 million over a 30 year period. At first glance, one might assume this amount would be saved in the first year. However, in GAO's analysis, Government costs would actually increase by $80 million during the first year of dollar coin production. Savings would be $13.2 million in the second year and

the stated savings level of $318 million would not be reached until 13 years after production of the coin began. Thus, the dollar coin would not provide any immediate deficit reduction.

Interestingly, GAO's projected sources of savings to the Government do not match the projections given by proponents of the dollar coin. While proponents claim that the savings result from the longer lifespan of the dollar coin, the GAO analysis shows that only $41 million of the $318 million in average annual savings results from reduction in production and processing costs. The bulk of the savings results from seigniorage generated from the production of coins.

In addition, GAO's figures were based on the assumptions that two one dollar coins would be required to replace each note currently in circulation, and that the Mint would produce two billion coins per year during a five year conversion period. If GAO has over estimated demand for the coin, the projected savings would be reduced accordingly.

Finally, it should be noted that the projected savings figures apply strictly to the Government. Certain handling and processing costs now born by the Government would be shifted to the private sector - banks, coin wrappers, and armored carriers - if the dollar bill is replaced by a coin. There has been no estimate of the overall cost impact of this proposal on the private sector.

Thank you again for this opportunity to present our views on the proposed legislation. At this time, I am willing to answer any questions you may have.

DEPARTMENT OF THE TREASURY

RESPONSES TO QUESTIONS POSED BY SENATOR ALAN J. DIXON
CHAIRMAN, SUBCOMMITTEE ON CONSUMER AND REGULATORY AFFAIRS

June 20, 1990

RESPONSES TO QUESTIONS OF THE CHAIRMAN,
SUBCOMMITTEE ON CONSUMER AND REGULATORY AFFAIRS

QUESTION 1A: Explain the logistics involved with minting a dollar coin.

ANSWER: The minting of a new one dollar coin would be conducted in two major stages: the developmental stage and the actual production stage.

The developmental stage consists of the following events:

- Contracting to obtain alloy development assistance
- Research and development to obtain the optimum alloy
- Coining tests on the alloy
- Color approval of the alloy
- Wear tests on the alloy
- Vending machine capability testing
- Submission and selection of artwork
- Conversion of artwork to dies
- Testing of dies for optimization of relief, crown and detail
- Die life testing of the alloy
- Production testing
- Competitive procurement of coinage strip

The three most critical steps in the developmental stage are (1) research and development of the coinage metal and coining die life, (2) determining the vending machine capabilities of the coinage material, and (3) determining the durability of the material through wear testing.

The production stage would consist of the same steps executed during production of our other circulating coins.

- Production of coin dies
- Production of coin blanks
- Stamping of coins
- Counting and bagging of coins
- Shipping of coins to Federal Reserve Banks for circulation

A number of these steps could occur concurrently. However, it is estimated that as long as 30 months (rather than the 18 months prescribed in the proposed legislation) would be required before the Mint would be ready to begin production.

QUESTION 1B: How long would the Treasury Department take to mint enough dollar coins to meet consumer demand?

ANSWER: There are currently approximately 4.9 billion one dollar notes in circulation. The Mint estimates it can produce the one dollar coin at a rate of 1 billion coins per year. Assuming production of the one dollar note ends eighteen months after the start of one dollar coin production, the Mint would have produced and distributed 3 billion coins at the theoretical end of life of the one dollar notes. (Average life span of a one dollar note is 1.4 years.) The Mint believes that the 3 billion coin supply supplemented by our 1 billion coins per year production capacity would be sufficient based on the following assumptions:

- Since the public prefers a note to a coin, the usage of the two dollar note will become significant. If given a choice, the public would choose a two dollar note to two one dollar coins. GAO has estimated that 25% of dollar note demand would be absorbed by the $2 note. Based on the Canadian experience with dollar coin demand and $2 note usage before and after the introduction of the dollar coin, we believe as much as 40% of the U.S. dollar notes in circulation will be absorbed by $2 notes.

- People will utilize the one dollar note for longer periods and in worse than normal physical condition, thus extending the eighteen month life span. Therefore, a combination of notes and coins would be available to the public.

- Based on experience with the Susan B. Anthony coin, the vending machine industry will not actively pursue conversion to the one dollar coin until the one dollar note production is ceased. That is, the industry will wait to make sure that the one dollar note is not reintroduced.

- The one dollar coin will not be hoarded by the public. Therefore, one dollar coins would not accumulate in the same way as pennies.

The Mint will, of course, need to be prepared to increase coin production to as much as 2 billion one dollar coins annually if demand warrants. However, such increases may negatively impact production for numismatic programs.

QUESTION 1C: Are present facilities and personnel adequate? Would the United States Mint need to expand?

ANSWER: The Mint will have adequate facility space at the Philadelphia and Denver Mints to produce sufficient one dollar coins to meet demand.

However, the Mint would need to purchase an annealing furnace and two blanking presses, at an estimated one-time cost of $2.3 million. The coins would be produced on high speed presses now being used for quarters. Additional presses would be purchased as part of the Mint's normal press replacement program. The Mint will require approximately 35 additional FTEs, at a cost of $ 1 million per year for the production of the 1 billion new coins. The Mint ultimately will need to increase its die production capacity, at a one-time cost of $7 - $10 million.

It should be noted that if coin redesign legislation is also enacted with timeframes overlapping the introduction of the new one dollar coin, the Mint will have difficulty accomplishing both simultaneously.

QUESTION 1D: Would any public awareness program be needed and what might one cost?

ANSWER: A public awareness program would be crucial to prepare the public and to encourage their acceptance of the one dollar coin. The Mint originally estimated that a public information campaign for the new one dollar coin would cost approximately $4 - $6 million. However, the actual cost would be dependent on the breadth and depth of the campaign necessary to achieve public acceptance of the coin. Based on recent information and the Gallup poll showing the strong negative public reaction to a dollar coin, we believe a high profile media campaign would be required at a significantly higher cost.

QUESTION 1E: How many one dollar notes are in circulation currently in the United States and in foreign countries?

ANSWER: As of 12/31/89, the total number of one dollar notes in circulation was 4.9 billion. The Department of the Treasury has no estimate on the breakdown of the number of one dollar notes in circulation in the United States and in foreign countries.

QUESTION 2A: Would the Treasury realize any savings from producing dollar coins?

ANSWER: Assuming the one dollar coin successfully replaces the one dollar note, the Government, as a whole, would experience some savings. But since there are a great many unknowns such as demand, degree of use of 2 dollar bills, and metal costs, predicting cost savings with confidence is difficult. These savings, however, would not be immediate. In the short term, Government operating costs would actually increase.

After all the one dollar notes in circulation have been replaced by one dollar coins and two dollar bills (estimated to take approximately 5 years to accomplish) annual cost savings would accrue to the Government, owing to the fact that a coin will last 25 years, compared to the 1.4 year life of a one dollar note.

Other factors should be considered when comparing the costs of one dollar coins and one dollar notes. The direct costs of minting a one dollar coin are largely borne by the Department of the Treasury. The cost of production of the one dollar notes is carried by the Federal Reserve. Therefore, the cost burden of production will be shifted from the Federal Reserve to the Department of the Treasury, as a direct appropriation.

Also, the one dollar note currently comprises nearly half of the production volume of the Bureau of Engraving and Printing. Its elimination would require BEP to spread overhead to the remaining denomination notes, thus increasing the costs per note.

Finally, public acceptance factors must be considered. For example, if the one dollar note is not eliminated, the public would reject the dollar coin and the costs associated with its production and storage would be a loss for the Government.

QUESTION 2B: Provide data on comparative production costs, circulation life, and costs of destruction.

ANSWER:

	PRODUCTION COST	CIRCULATION LIFE	COST OF DESTRUCTION
HOMOGENEOUS ONE DOLLAR COIN	$0.04	25 years	$0.005*
CLAD ONE DOLLAR COIN	0.06	25 years	0.005*
PLATED ONE DOLLAR COIN	0.10	25 years	0.005*
ONE DOLLAR NOTE	0.026**	1.4 years	0.003***

* NOTE: The destruction cost for the one dollar coins includes only the cost of melting the coins. It does not include the lost production costs or the required seigniorage deduction.

** NOTE: Currently, the Bureau of Engraving and Printing (BEP) charges the Federal Reserve $26.00 per thousand notes produced. This is based on production of the full denominational range of notes over a given quantity. Nearly one-half of the production volume is devoted to $1 Federal Reserve Notes. Their precipitous elimination would significantly increase unit costs borne by the Federal Reserve because overhead expenses are relatively stable and would have to be spread over fewer units. It is estimated that for the first year of $1 coin production, BEP's cost per thousand notes would be $33.47 based on 1990 dollars and production volume.

***NOTE: Figure obtained from the Federal Reserve -- In 1989, the Federal Reserve spent $9.03 million for shredding worn out one dollar notes, destroying approximately 3.003 billion notes.

QUESTION 3: What would be the impact of minting a dollar coin on other denominations of coins and notes?

ANSWER: The Mint could produce one billion one dollar coins per year without having any negative impact on its ability to produce the other circulating coins.

However, the production of one dollar coins could have an impact on the demand for other coins and notes. In particular, if production of the one dollar note is ceased, demand for the two dollar note may significantly increase. There is also a potential that a circulating one dollar coin could reduce the demand for quarters, particularly if the vending machine industry reacts quickly to convert their machines for use of the new one dollar coin.

QUESTION 4A: Does the success of the one dollar coin hinge upon removing the one dollar note from circulation?

ANSWER: Yes. Although the Department of Treasury does not endorse the elimination of the one dollar note, experience with: (1) the Susan B. Anthony dollar coin, (2) the actions of foreign countries (e.g., Canada, Great Britain, Norway, Australia, Japan) which have withdrawn the note when issuing high denomination coinage, and (3) numerous studies, evaluations and testimony which have addressed this question demonstrates that in order for a one dollar coin to circulate effectively production of the note of equivalent value must be ceased. Eventually, the note would be removed from circulation.

QUESTION 4B: If the one dollar note were not removed, would hoarding of the one dollar coin result? What would be the consequences?

ANSWER: If the one dollar note were not removed, it is possible that there could be some limited hoarding of the new one dollar coin by collectors and other persons who are speculating that the coin would become a rarity and increase in value. However, the number of one dollar coins affected by this "hoarding" would be insignificant.

The consequences of not removing the one dollar note include:

- Public rejection of the new one dollar coin.
- The failure of the new one dollar coin to effectively circulate and become an integral part of the U.S. currency system.
- The accumulation of the unwanted one dollar coins in the vaults of the Mint and the Federal Reserve Banks.
- The virtual loss to the government of the costs to research, produce and distribute the one dollar coins.

- An increase in the costs to store one dollar coins rejected by the public since there would be at least 1 billion of the new gold colored dollar coins produced in the first year compared to the 425 plus million Susan B. Anthony dollars in inventory.

QUESTION 4C: If the one dollar note were removed, what would be the consequences?

ANSWER: The removal of the one dollar note from circulation would, in all probability, cause a general uproar from the American public. If the criticism of the removal were accepted, the use of the two dollar note could be expected to increase and the dollar coin would likely circulate. The Treasury Department does not support the removal of the dollar note nor the introduction of a dollar coin.

Removal of the one dollar note is essential if successful circulation of the one dollar coin is desired. Experience with the Susan B. Anthony dollar coin, the actions of foreign countries, and numerous studies all point to the conclusion that in order for a one dollar coin to circulate effectively production of the note of equivalent value must be eliminated.

QUESTION 5A: How can we gauge potential public acceptance of a one dollar coin?

ANSWER: One indicator of the public's acceptance of a new one dollar coin is the public's response to previous one dollar coins (e.g., Susan B. Anthony and Ike dollar coins). Experience indicates that for a one dollar coin to circulate effectively the one dollar note must be eliminated. In addition, the public must have a need for the coin; have significant opportunities to use the coin; and, find the coin convenient to use, attractive, worthy of its value (i.e., creditable) and distinguishable from other circulating coin.

A recent Gallup poll and focus groups have clearly shown the public's preference for the dollar bill and objections to the dollar coin. Only 15% favored the replacement of the dollar bill with a dollar coin and 59% opposed a dollar coin even if the bill remained.

QUESTION 5B: What are the potential societal benefits of a one dollar coin?

ANSWER: The tactile discriminability of coins allows the sight-impaired to distinguish between different denominations of coins, a benefit paper currency does not provide.

The durability of a coin provides a benefit in that it is not as easily destroyed as paper currency.

The availability of more products from vending machines is a possible advantage. In addition, certain industries (e.g. vending, transportation, telephone) could benefit from the introduction of a one dollar coin, since a coin could be used, or used more readily, than paper currency in those industries.

QUESTION 5C: What are the potential costs/detriments of a one dollar coin to society?

ANSWER: The following are potential costs/detriments of a one dollar coin:

- The biggest potential detriment of a one dollar coin is that the public may not accept or use the coin, which would result in a repeat of the Susan B. Anthony experience.
- Slower cash transactions.
- Possible higher prices at vending machines where prices could be raised to the dollar.
- Additional costs passed on to consumers from the private sector's costs of retooling vending and laundromat machines.
- More bulk to transport, resulting in increased transportation costs. Banks would incur increased transportation, storage, sorting, wrapping, processing and administrative costs.
- Accommodation problems in cash registers, drop safes and pneumatic bank tubes.
- Public transportation costs might increase as a result of the cost of retrofitting fare machines, which would have disproportionate effects on low-income groups and those dependent on public transportation.

QUESTION 5D: What industries or businesses would be affected by this legislation and how?

ANSWER: The following businesses and industries could potentially benefit from the introduction of the one dollar coin:

- The vending machine industry
- Companies which retail through vending machines (i.e, amusement games, food, drinks, small item retail goods, laundries)
- Telephone companies
- Transportation authorities
- U.S. Postal Service (stamp machines)
- State and local transportation departments (toll booths and parking meters)
- Casinos

Coin wrapping and coin transport businesses could also benefit from the need to store and move one dollar coins.

Banks and businesses could suffer increased costs in transporting the one dollar coins versus the one dollar note due to its greater weight and bulk. Banks could also incur increased storage, sorting, wrapping, processing, and administrative costs. It is also possible, depending upon any other changes made to the coin and currency structure, that change and currency drawers currently used by banks and businesses would need to be altered to fit the new monetary structure.

QUESTION 5E: Would a one dollar coin spur inflation?

ANSWER: The Mint cannot say with certainty that a dollar coin would be inflationary since it will have the same monetary value as the one dollar note. However, focus groups indicated the belief that vending machine prices would be raised to a dollar.

QUESTION 6A: What do you believe to be the reasons for the failure of the Susan B. Anthony dollar coin?

ANSWER: The main reasons for the public's rejection of the Susan B. Anthony dollar coin were:

- The availability of the preferred and convenient dollar bill.

- The similarity of the Susan B. Anthony coin to the quarter in size, weight and color. Cash register operators were unfamiliar with the one dollar coin and, partly because of the confusion caused by its similarity to the quarter, chose not to use the coin in change making transactions rather than making a costly mistake.

- A lack of support from the vending machine industry. Many vending machine merchants hesitated before making costly modifications to their machines to determine whether the Susan B. Anthony dollar would be successful.

- A general satisfaction with the existing stable U.S. currency and coinage system. Why change a product that works?

QUESTION 6B: What should be done with the 450 million Susan B. Anthony dollars which the Treasury Department currently has in storage?

ANSWER: Approximately 425 million Susan B. Anthony dollar coins are currently in storage. If legislation for a new one dollar coin is enacted, the Susan B. Anthony coins should be melted, with the metal being used in other coins. The seigniorage previously credited from the Susan B. Anthony dollar coin would need to be adjusted on a dollar-for-dollar basis with the seigniorage from the new one dollar coins.

If a new one dollar coin is not introduced, the Mint recommends that we continue to deplete the inventory of Susan B. Anthony dollars by issuing coins to the Federal Reserve Banks as demand requires and through sales to the public through the Mint's sales catalogue and at over-the-counter sales outlets.

QUESTION 6C: Would melting the Susan B. Anthony dollars produce a loss for the Treasury? If so, how much would the loss be?

ANSWER: Melting down the Susan B. Anthony dollar coins would result in an operating loss to the Government of approximately $8.47 million. This amount is comprised of the fabrication and manufacturing costs of the Susan B. Anthony coins of approximately $6.33 million plus the cost of melting the coins which is approximately $2.14 million.

Also, approximately $412 million in seigniorage already credited from the Susan B. Anthony coins would have to be deducted from future production of other circulating coinage. If a new one dollar coin is issued, the $412 million in seigniorage could be adjusted on a dollar-for-dollar basis from the seigniorage resulting from the production of the new one dollar coins.

QUESTION 6D: Should any legislative action be taken to remedy the reverse seigniorage problem?

ANSWER: No. To our knowledge, there is no legislative remedy to the reverse seigniorage problem. If a new one dollar coin is issued, the seigniorage from the new coin will be used to adjust the seigniorage of the Susan B. Anthony coins as they are melted.

QUESTION 7A: Have countries which have adopted coins of denominations similar to the one dollar, e.g., Canada, the United Kingdom, and Australia, encountered problems with implementation, public acceptance, the impact on business, or the usability with vending machines?

ANSWER: To our knowledge all foreign countries which have adopted high denomination coins have encountered significant problems in implementation and public and business acceptance. These countries all found that the public preferred the note and were able to achieve circulation of the coin only through forcing its use by elimination of the equivalent value note. We are not aware of any problems encountered in the use of the coins in vending machines.

QUESTION 7B: What benefits have foreign countries experienced as a result of the circulation of one dollar coins?

ANSWER: The principal benefit reported by foreign countries is the long-term savings to the government which results from the life of the coin being far superior to the life of the note. It is also noted that vending machine companies and public transit systems support use of the coin.

QUESTION 8: Have studies been done to determine whether a 90% copper one dollar coin can be recognized and accepted by vending machines? If not, who will conduct such studies? How much will they cost and how long will they take?

ANSWER: The Mint is aware that metal fabricators have been testing various alloys to be proposed for a dollar coin. No detailed studies have been conducted by the Mint to determine whether these or any other 90% copper one dollar coin can be produced, and if produced, whether it would be accepted by vending machines.

The Mint recommends that coining studies be undertaken, in conjunction with metal fabrication companies, representatives of the vending machine and banking industries, and the FRB, to determine the acceptability of various coinage metals. Adequate research is estimated to cost between $300,000 and $500,000. Funds for the research would have to be appropriated by Congress.

The Mint would require at least 30 months from the time of the bill's enactment to the commencement of production of the new one dollar coins.

Senator DIXON. Thank you, Director. I wonder if I could impose on you and Mr. Stevens. Congressman Kolbe is here. He was late because he was voting in the House, which is a perfectly good excuse. If I could accommodate him so that he could go back to his duties there, then I'd love to return to our exchange, Director, and ask you some questions and hear from Mr. Stevens.

Would you both accommodate Congressman Kolbe in that regard?

We're delighted to have Jim Kolbe from the House here. Thank you for coming, Congressman.

Mr. KOLBE. Thank you, Mr. Chairman, and I do appreciate your accommodating me because we are going to have another vote very shortly.

STATEMENT OF JIM KOLBE, A REPRESENTATIVE IN CONGRESS FROM THE 5TH DISTRICT OF THE STATE OF ARIZONA

Mr. KOLBE. I feel as though maybe I'm a new coin here, sandwiched in between the two parts on the outside here. But I appreciate their willingness to let me slip into the middle of this sandwich here.

And I do appreciate the opportunity to participate in this hearing, Mr. Chairman. I will insert my entire statement and make my remarks short, if I might, on Senate bill 814, the coinage reform act, which has been introduced by Senator Domenici.

As you may know, a companion bill to S. 814, is H.R. 1068, which Congressman Mo Udall and I have introduced in the House of Representatives.

I certainly commend you, Chairman Dixon, for your interest in pursuing these facts surrounding the proposed new coin dollar for the United States.

It is a proposal that is not without skeptics, and I think we heard a lot of that skepticism expressed here by the Director of the Mint. Indeed, in the beginning, I certainly expected to receive waves of letters which began with the question, "Are you crazy?"

I was certainly aware of the sense that Americans are very conservative when it comes to their currencies. They don't want to carry around funny coins at all, and that they prefer paper money.

Looming over all of it was our coinage reform Bay of Pigs, the Susan B. Anthony dollar.

Nevertheless, even a decade ago, the facts spoke very clearly. Though we failed in the execution, the country recognized the need for a dollar coin in 1979, and the U.S. Congress passed and the President signed the bill to mint a new U.S. coin.

Mr. Chairman, the rationale for minting a coin a decade ago is even more urgent today. The effects of periodic inflation over the last 30 years have thrown the U.S. currency system out of alignment.

Unfortunately, today's dollar is the quarter of the 1950's. A dollar now buys only a cup of coffee and a donut, a couple of candy bars, a load of laundry, or part of the Sunday paper.

Thirty years ago, these were what were called "pocket change" purchases. Today, they've become billfold transactions. The quarter only buys what a nickel and a penny bought in the 1950's.

Half of all the bills produced in this country are $1 notes. These bills become so worn after only 17 months, that they're pulled out of circulation and shredded. The cost of destroying and replacing these wornout pieces of paper is enormous. On the other hand, our coins last up to 30 years and once placed in circulation, are never recalled.

Representative Lehman, the chairman of the Subcommittee on Consumer Affairs and Coinage of the House Banking Committee, requested a study of these costs by the GAO, and you've heard about that, and you'll hear about that some more here. That recently released report showed that the savings for a more durable dollar, coupled with reduced handling and circulation costs, will amount to a staggering $318 million every single year, when in full production.

Our minting of the Susan B. Anthony dollar in 1979 was a sensible acknowledgement of inflation. The "Susie" failed, not because the need didn't exist, but because it was an alternative dollar rather than a replacement dollar. The coin lacked public support because it looked and it felt like a quarter.

I have the two of them here and they do look and feel a great deal alike. It was about the same size, the same color, and it had the same reeded edge to it.

The Senate bill and the House bill that you're considering here today differ only in this one respect. But this difference is critical and on this, Ms. Pope and I would certainly agree.

The Senate bill does not call, as you know, for the elimination of the $1 note. And I will state flatly that any effort to mint a new coin dollar without mandating the elimination of the $1 note is as doomed to fail as the Susan B. Anthony coin did a decade ago.

So we ought to learn from our mistakes.

Indeed, since 1980, learning from the U.S. experience with the Susan B. Anthony, England, Japan, Norway, Spain, Sweden, Singapore, the Netherlands, and Australia, have successfully placed into circulation high denomination coins, but have coupled that with the withdrawal of the competing paper note.

Canada introduced its dollar coin 2 years ago and it's already achieved widespread public acceptance.

There's one other common recurring misconception that I'd like to address. Some people write to me complaining about all the coins they'd have to carry around. Because the half dollar is too bulky for public acceptance and not currently minted, the highest circulating coin in this country is the quarter. This places the U.S. virtually last among industrialized countries in the value of its circulating coins.

Japan's high denomination coin, for example, is worth over $3. Australia has a $2 coin; it's considering a $5 coin.

And because the quarter is such a small denomination coin, we tend to carry a lot of them. I know if I reach into my pocket now, I think I'd find five or six of them there. Particularly if we're planning on using a vending machine, we have a lot of them.

If we replace four quarters with a coin dollar and substitute a $2 bill for those ubiquitous ones, you significantly reduce the number of pieces of currency, paper and metal, that you'll need to carry.

But the convenience for the American public is only part of the debate of the new U.S. gold-colored coin. The heart of our problem is realignment of our currency.

We decided long ago in this country that there is a paper/metal threshold below which our money changes hands so frequently, that paper money simply wears out too quickly. Hence, for those high velocity transactions, we decided to use more durable material—metal. But that threshold value has eroded to the point that we are now using paper in virtually every cash transaction. We're becoming much like Third World countries—all paper, no metal.

Unless we adjust that threshold back to its original value, or some place closer to it, as other nations have done and are doing, we will continue to pay the enormous printing costs for paper, as well as suffer the inconveniences of an all-paper currency system.

There's been widespread support from opinion leaders for this from coast to coast, and I recognize that we have the problem of getting public opinion on our side in this.

There have been scores of news articles on the proposal. I won't go into all of them, quote them all, but let me just quote two of them.

The New York Times, quoting:

> America's coinage and currency are out of date. Introducing a dollar coin to replace paper dollars would spare the public an increasingly senseless hassle with money whose time has passed.

And William F. Buckley put it this way:

> There's a bill that deserves universal backing, and this happens about once every 1000 years. It's called the United States Coinage Reform Act.

The support in Congress is also growing. One hundred and thirty House Members have cosponsored our bill. Twenty-nine Senators are sponsors of Senator Domenici's S. 814.

Mr. Chairman, this week, members of the budget summit are meeting to try to figure out ways to raise revenues, cut programs to help balance the budget. The Coinage Reform Act delivers hundreds of millions of dollars to the American taxpayer without cutting any domestic programs or raising taxes, and yet, adds efficiencies to our economic engine.

Clearly, the facts speak for themselves. Can we get word to the American public that a gold-colored dollar coin will save $300 million every year? I believe it's already beginning to happen.

I thank the chairman and this committee for providing a forum to let that happen.

Thank you, Mr. Chairman.

[The complete statement of Representative Kolbe follows:]

STATEMENT BY REPRESENTATIVE JIM KOLBE
before the
SENATE BANKING COMMITTEE

S. 814/H.R. 1068, "The Coinage Reform Act of 1989"
JUNE 20, 1990

Mr. Chairman and Members of the committee, thank you for providing me the opportunity to participate in this hearing on Senate Bill 814, the "Coinage Reform Act" introduced by Senator Domenici. The companion bill to S. 814 is H. R. 1068 which Congressman Mo Udall and I introduced in the House of Representatives.

I commend Chairman Dixon for his interest in pursuing the facts surrounding the proposed new coin dollar for the United States. It is a proposal not without skeptics. Indeed, in the beginning, I expected waves of letters which begin with the question, "Are you crazy?". I was also braced for newsprint full of similar epithets mixed with a little laughter.

I was well aware of the sense that Americans don't want to carry all those funny coins and that they prefer paper money. And looming over it all was our coinage reform "Bay of Pigs" . . .the Susan B. Anthony Dollar.

Nevertheless, even a decade ago the facts spoke very clearly. Though we failed in the execution, this country recognized the need for a dollar coin in 1979, and the United States Congress passed, and the President signed the bill to mint a new U. S. coin.

Mr. Chairman, the rationale for minting a coin a decade ago is even more urgent today. The effects of periodic inflation over the last thirty years have thrown the U. S. currency system out of alignment. Unfortunately, today's dollar is the quarter of the 1950s. A dollar now buys only a cup of coffee and a doughnut, a couple of candy bars, a load of laundry or the Sunday newspaper. Thirty years ago, these were "pocket-change purchases"; today, they have become "billfold transactions". The quarter only buys what a nickel and a penny bought in the '50s.

Half of all bills produced in this country are $1 notes. Those bills become so worn after only 17 months that they are pulled from circulation and shredded. The cost of destroying and replacing those worn-out pieces of paper is enormous. On the other hand, U. S. coins last up to 30 years and once placed in circulation, are never recalled.

Representative Lehman, Chairman of the Subcommittee on Consumer Affairs and Coinage of the House Banking Committee requested a study of these costs by the Government Accounting Office (GAO). That recently released report showed that savings from a more durable dollar coupled with reduced handling and circulation costs will mount to a staggering $318 million every single year. Based on the GAO study and a House Banking Committee hearing, Chairman Lehman has decided to hold formal hearings in the House.

Our minting of the Susan B. Anthony Dollar in 1979 was a sensible acknowledgement of inflation. The "Susie" failed, not because the need didn't exist, but because it was an alternative dollar rather than a replacement dollar. The coin lacked public support because it looked and felt like a quarter. It was about the same size, the same color, and it had the same reeded edge.

From the very beginning the Susan B. Anthony was doomed to fail. The experts told us if we did not withdraw the paper dollar, the coin would have to compete as an alternative currency and the public would opt for the more familiar $1 note.

This Senate bill and the House bill differ only in this one respect. But this difference is critical. The Senate bill does not call for the elimination of the $1 note. And I will state flatly any effort to mint a new coin dollar without mandating the elimination of $1 note is as doomed to fail as the Susan B. Anthony coin was a decade ago. Let us learn from our mistakes.

Indeed, since 1980, learning from the U. S. experience with the Susan B. Anthony coin, England, Japan, Norway, Spain, Sweden, Singapore, the Netherlands and Australia have successfully placed into circulation high denomination coins, but have coupled that with the withdrawal of the competing paper note.

Canada introduced its gold-colored dollar coin two years ago and it has already achieved widespread public acceptance. Canada, learning from our mistake's avoided another "Bay of Pigs" failure and with careful planning, achieved a "Grenada" style success for their currency system.

In this country, the facts do seem to be getting out. Though I could show you a few letters I've received which question my sanity, they come from those who took a position without any knowledge of the benefits the coin dollar brings to the economy. The initial negative response to the coin dollar proposal quickly gives way when taxpayers begin to understand the $300 million annual savings to the U. S. Treasury and other benefits to the economy.

There is one common recurring misconception I'd like to address. Some people write to me complaining about all the coins they'd have to carry around.

Because the half-dollar is too bulky for public acceptance and not currently minted, the highest circulating coin in this country is the quarter. This places the United States near the last among other industrialized countries in the value of its circulating coins. Japan's high denomination coin is worth over $3 and Australia has a $2 coin and is considering a $5 dollar coin.

And because the quarter is such a small denomination coin, we tend to carry a lot of them, particularly if we're planning to use a vending machine. If you replace 4 quarters with a coin dollar, and substitute $2-dollar bills for those ubiquitous "ones", you've significantly reduced the number of pieces of currency - - paper and metal - - you'll need to carry.

But convenience for the American public is only part of the debate for a new U. S. gold-colored coin. The heart of our problem is realignment.

We decided long ago in this country that there is a "paper/metal threshold" below which our money changes hands so frequently that paper money simply wears out too quickly. Hence, for those high velocity transactions we decided to use a more durable material, metal. But, that threshold value has eroded to the point that we are now using paper in virtually every cash transaction. We are becoming much like many third world countries - - -all paper and no metal.

Unless we adjust that threshold back to its original value - -as other nations are doing - - we will continue to pay the enormous printing costs for paper as well as suffer the inconveniences of an all paper currency system. Its only a matter of time before the public will begin to realize just how acute the problem is becoming.

Actually, the majority of the letters coming to my office from citizens of all walks of life, from Tombstone, Arizona to Lewiston, Maine praise the proposal. Word has gotten out that printing and handling a lot of paper $1 bills is both time consuming and very expensive.

There has been widespread universal support from opinion leaders coast to coast. There have been scores of news articles on the proposal.

The Chicago Tribune wrote, "As the world's largest economic system and primary economic engine, the United States no longer should tolerate an inefficient currency system."

The New York Times editorialized, "America's coinage and currency are out of date. . .introducing a dollar coin to replace paper dollars would. . . spare the public an increasingly senseless hassle with money whose time is past."

And William F. Buckley put it this way, "There is a bill that deserves universal backing, and this happens about once every 1,000 years. It is called the United States Coinage Reform Act."

The support in Congress is also growing. One hundred thirty House members have co-sponsored the bill; 29 Senators are sponsoring S. 814.

Mr. Chairman, this week members of the Budget Summit are meeting to figure out ways to raise taxes and cut vital programs to help balance the budget. The Coinage Reform Act delivers hundreds of millions of dollars to the American taxpayer without cutting any domestic programs or raising taxes, and still adds efficiencies to our economic engine.

Clearly, the facts speak for themselves. Can we get the word to the American public that a gold-colored dollar coin will save $300 million every year? I believe it is already beginning to happen, and I thank the Chairman and this committee for providing a forum to let that happen.

Senator DIXON. Well, Congressman Kolbe, thank you for accommodating us by giving us your point of view. And I thank Director Pope and Mr. Stevens for permitting you to intercede momentarily.

We will excuse you to return to your duties in the House. Thank you very much.

Mr. KOLBE. Thank you.

Senator DIXON. Mr. Stevens, we're delighted to hear from you. L. Nye Stevens, Director, Government Business Operations Issue Group, General Accounting Office.

STATEMENT OF L. NYE STEVENS, DIRECTOR, GOVERNMENT BUSINESS OPERATIONS ISSUE GROUP, U.S. GENERAL ACCOUNTING OFFICE, WASHINGTON, DC

Mr. STEVENS. Thank you very much, Senator Dixon.

The only prop I have is the report that we have issued and that I will summarize in very short order today because it's already been referred to by Senator Domenici and Mrs. Pope.

I want to remind you that it dealt not just with the dollar coin proposal, but also with the possible elimination of the penny and the 50-cent pieces which are also legislative proposals either before the House or the Senate.

The key factor, I believe, in our analysis has to do with the differential durability between the coin and the bill. A dollar note costs about 2.6 cents to produce, but only lasts about 17 months. A coin is about 20 times as durable as that. The dollar coin would cost about 6 cents to produce, but it would last about 20 times as long, or at least 30 years in circulation.

We estimated that over a 30-year period, the average annual budgetary savings, and this is savings to the Government and not the economy, from issuing a dollar coin would be $318 million in present-value terms. That means discounted for the inflation that we expect in the future. This figure is a net product of two major savings components that are offset by certain additional costs from the proposal.

The first of these is production and processing costs that would be reduced from the coin compared to the dollar, or about $41 million annually, on the average.

And the second, as Mrs. Pope pointed out, would be interest avoided from reduced borrowing to finance the Nation's debt that would result from the seigniorage on the coin. This is a difficult concept, I believe, for the American public to understand, which has some implications for its potential acceptability.

Seigniorage is the difference between a coin's face value and its production costs. And in this case, we estimated that to be about 94 cents per dollar coin produced, and that would result in an average interest cost avoidance to the Treasury of $461 million annually.

Now, these two savings components come to a gross figure of about $502 million on an annual basis, again, but they'd be offset by three other components. One of these is, as Mrs. Pope mentioned, some additional costs for mint equipment and research and development and a public awareness campaign. There would also be at least $6.6 million of additional appropriations to the mint for increased coin production costs. And the most significant offsetting

factor is something akin to seigniorage, which is the loss of an average of $177 million annually in interest that is now earned on Treasury securities held as a result of issuing $1 notes.

The net effect of these increases in savings would be an average net budgetary savings to the Government of $318 million annually.

Now, as has been emphasized, and I couldn't emphasize more strongly, it can't be emphasized strongly enough, I believe, that this savings estimate is totally dependent on the wide acceptance of the dollar coin and substitution of it for the dollar note in the economy.

And our interviews with trade associations, with the public, with focus groups of individuals who handle cash transactions as part of their jobs, indicated that the public reaction to this would be skeptical.

Some groups, such as armored car carriers and the banking industry, pointed out that some government savings would come at the expense of additional costs being borne by themselves and other entities in the private sector.

And a universal belief among those we spoke to was that if a dollar coin and a dollar bill were in circulation at the same time, the public would choose to use the dollar bill.

It's true that a dollar coin could be imposed on the American public, but this would require that Congress and the administration reach and sustain an agreement to eliminate the dollar bill and to stand up to an initial public reaction that we believe no doubt would be a negative one.

We think this is unlikely in view of what happened to the Anthony coin, the lack of enthusiasm for it that Mrs. Pope's statement represents on behalf of the Treasury Department, and the absence of any public demand for it.

We also note that the Gallup survey last month showed that only 15 percent of the American public think it's a good idea both to produce a dollar coin and to withdraw the dollar note, which would be a condition, in our view, for success.

One of the things our study looked at was the experience with the Susan B. Anthony dollar. Even though the Treasury, the mint, and the Federal Reserve officials at that time believed, as we do now, that the Anthony dollar would not successfully cocirculate with the dollar note, no one came forth initially to advocate that the note be eliminated, knowing that this would be unpopular with the public.

In 1979, when Treasury let it be known that they were anticipating withdrawal of the note, there was an immediate congressional reaction. Ninety-seven Members of Congress put in a bill to prevent this from happening and naturally, it never did.

In addition, as has been pointed out, the Susan B. Anthony failed because it did look too much like a quarter and it lacked an effective promotion campaign.

We think that the experience with the Anthony dollar does not prove that a dollar coin can't be successful, but it does show that it won't succeed if its introduction is not properly managed.

Some of the elements of proper management include elimination of the dollar bill that I mentioned, a determination to stand firm in the face of that expected negative public reaction, a reasonably

short transition period that needs to be allowed, and there must be a sophisticated public awareness campaign that would sell this to the American public as advantageous to them. It needs to be sophisticated because that certainly is not going to be their assumption going in.

We looked at the foreign countries' experience, including six that have made that transition recently—Canada, Great Britain, France, the Netherlands, and so forth. Officials from all six of those countries told us that they had faced public opposition to this, that elimination of the paper equivalent was essential to the success of the introduction of the dollar coin. We thought it important that they have different forms of government from us. They have parliamentary forms of Government which make it easier to impose governmental decisions on the people because there aren't so many channels for the public in those countries to influence legislation directly.

One word about the penny and then I'll conclude.

The penny has fallen to about one-seventh of its original value in 1792, due to inflation, and it's considered by some, no doubt, to be a nuisance. But demand for it is strong. There are about 12 billion of them produced every year.

Consumers that we spoke with believe that the rounding would be a complication. They saw it would ultimately probably be to their disadvantage, particularly to the poor, who are more dependent than others on small cash transactions.

Further, and this is perhaps most important in our analysis, it only costs about 7/10ths of a cent to produce a penny, so the Government makes a little profit on it. It makes about 3/10th of a cent of profit, and there's an economic benefit to it.

It does reduce the need to borrow by about $4 million annually. The 50-cent piece also reduces the need to borrow, even though it's not much used, by about $2 million a year annually.

So, for those reasons, we saw no reason to recommend elimination either of the penny or of the 50-cent piece.

That concludes my statement.

[The complete prepared statement of L. Nye Stevens follows:]

United States General Accounting Office

GAO Testimony

For Release
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A New Dollar Coin Has Budgetary Savings Potential But Questionable Acceptability

Statement of
L. Nye Stevens, Director
Government Business Operations Issues
General Government Division

Before the
Committee on Banking, Housing, and Urban Affairs
United States Senate

A NEW DOLLAR COIN HAS BUDGETARY SAVINGS POTENTIAL BUT QUESTIONABLE ACCEPTABILITY

SUMMARY OF STATEMENT BY
L. NYE STEVENS
DIRECTOR, GOVERNMENT BUSINESS
OPERATIONS ISSUES
GENERAL GOVERNMENT DIVISION
U.S. GENERAL ACCOUNTING OFFICE

Australia, Canada, Japan, and the major countries of western Europe use a coin for retail transactions at the level for which Americans use the paper dollar. While most of these countries have substituted the coin for their paper dollar equivalents in the past 20 years, the U.S. attempt to put the Susan B. Anthony dollar into circulation in 1979 was a failure. In considering legislative proposals to mandate a new dollar coin, and to phase out the penny and half dollar, the House and Senate banking committees asked GAO to evaluate the costs and benefits of the currency revision proposals to the government in light of the Susan B. Anthony dollar and other countries' experiences.

Although the production cost of a dollar coin would be about 6 cents each, more than twice the 2.6 cent production cost of a dollar note, the coin would last about 30 years compared to an average life of 1.4 years for the note. GAO estimates that the government could realize a net annual budgetary savings of $318 million (in present value terms) if it replaced the dollar bill with a more durable dollar coin, but only if the coin were widely accepted and used. The savings would result from reducing production and processing costs as well as reducing the need to borrow to finance the debt.

However, based on the Susan B. Anthony experience, lessons learned from foreign governments, and the results of public surveys, GAO believes that widespread acceptance of the coin will not be achieved unless Congress and the Administration jointly resolve not only to eliminate the dollar note, but also are firm in their decision to make the change and be prepared to handle public resistance.

GAO found no comparable economic argument for eliminating either the penny or the half dollar. Both are profitable to the government in that their value exceeds their production and distribution costs. Demand for the penny remains high, and the public is skeptical about the effects, particularly on the poor, of rounding retail cash transactions to the nearest 5 cents.

Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss the results of our review of the feasibility, expected acceptance, and potential effects on the government of proposed legislation that would significantly change the currency and coins used in our economy.

Three bills have been introduced in Congress--H.R. 1068, H.R. 3761, and S. 814--which collectively call for

--replacing the 1-dollar note with a new dollar coin, which would be the same size as the Susan B. Anthony coin, but gold in color with a design symbolizing Christopher Columbus;
--phasing out the penny and rounding off cash sales, but not sales paid by check or credit card, to the nearest 5 cents; and
--phasing out the half-dollar coin.

The Senate bill is unique in that it does not call for ceasing production of 1-dollar Federal Reserve notes. As I will explain, we believe elimination of the dollar note to be crucial to the success of a new dollar coin.

These proposals have earned the support of certain metal production interests and have attracted interest both because of the prospect of budgetary savings and because Australia, Canada,

Japan, and the major countries of western Europe have all converted their low denomination currency to coins. My statement today will be brief and will summarize our report that we completed last month.[1] We concluded that the government could save over $300 million annually if it replaced the dollar note with a coin but only if the coin was widely accepted and used. Based on the Susan B. Anthony experience, on lessons learned from foreign governments that have made equivalent conversions, and on public surveys, we think these savings are unlikely to occur unless Congress and the Administration jointly resolve not only to eliminate the dollar note but also stand up to a negative public reaction that should be fully anticipated. We found no compelling reason to eliminate either the penny or half dollar.

Our work centered on four areas: potential government savings from the proposed legislation, expected acceptability of the proposals to the private sector and public, reasons the Anthony coin failed, and experiences of foreign governments with similar currency changes.

We adapted a computer model used by the Federal Reserve System to estimate savings, incorporating our own assumptions and data on various economic and cost factors. To evaluate public and private sector acceptability, we interviewed numerous trade and

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[1] National Coinage Proposals: Limited Public Demand for New Dollar Coin or Elimination of Pennies (GAO/GGD-90-88, May 23, 1990).

public interest associations, held 12 focus group discussions with the general public and individuals who handle cash as a part of their jobs, and interviewed selected state sales tax officials, Mint contractors, a major cash register manufacturer, various vending machine operators and manufacturers, and several armored car carriers. We contracted with a national survey research firm to assist us in conducting the focus groups.

To obtain information on foreign experiences with similar conversions, we interviewed monetary officials in Canada, France, the Netherlands, the United Kingdom, and West Germany. Additionally, we interviewed embassy officials of Norway, Spain, and Switzerland.

We discussed all four areas of interest with Treasury, Mint, Bureau of Engraving and Printing, and Federal Reserve System officials and obtained and reviewed pertinent data they had on the subjects.

BACKGROUND

Two units of the Department of the Treasury produce American currency and coins in quantities driven by public demand for the various denominations. Treasury's Bureau of Engraving and Printing produces paper currency as demanded by the Federal Reserve System. About 45 percent of the 7 billion notes printed

this year will be 1-dollar notes. A dollar note costs about 2.6 cents to produce and lasts about 1.4 years in circulation before it has to be replaced.

The U.S. Mint produces coins, which are more durable than paper currency. The penny is the highest volume coin produced, accounting for 12.8 billion (or 71 percent) of the 18 billion coins the Mint will produce this year. Only 41 million half dollars will be produced this year, primarily for use in casinos.

According to the Treasury and Mint, the total amount of currency and coin in circulation on December 31, 1989, was $261.4 billion, including 4.9 billion 1-dollar notes and 136.7 billion pennies.

SIGNIFICANT BUDGETARY SAVINGS ARE POSSIBLE WITH A DOLLAR COIN

We estimated that over a 30-year period, annual budgetary savings from issuing a dollar coin would be $318 million in present value terms. This figure nets two major savings components offset by certain additional costs.

First, we estimated that the government would reduce its currency production and processing costs by $41.4 million annually, primarily due to the coin's longer life and more convenient processing by the Federal Reserve System. A second major savings component would be the interest avoided from reduced borrowing to

finance the Nation's debt that would result from the seigniorage earned with a dollar coin. Seigniorage, or the difference between a coin's face value and its production cost, would be 94 cents for each dollar coin produced and result in an average interest cost avoidance of $461.1 million annually. It is important to bear in mind that seigniorage, while it does not reduce the size of the current deficit, does reduce the amount of borrowing needed to finance the deficit. Therefore, the reduced borrowing resulting from seigniorage in the current year would reduce deficits in future years.

The total $502.5 million annual savings in coin production and processing and interest avoided from seigniorage would, however, be partially offset by three other components. First, we estimated that initial outlays needed to enable the Mint to produce 2 billion coins a year for 5 years would average $593,000 a year over our 30 year analysis period. This average annual outlay over 30 years would total $17.8 million, which includes $1.5 million to purchase two blanking presses and an annealing furnace; $300,000 to research and develop the coin; $10 million to expand the Mint's die-casting capacity; and $6 million for a public awareness campaign. Second, we estimated that the Mint would need an additional $6.6 million of appropriations annually for increased coin production costs. Finally, we estimated that the Federal Reserve would lose an average of $177.1 million annually from interest now earned on Treasury securities held as

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a result of issuing 1-dollar notes. (Generally, the difference between the face value of notes and the cost of printing them and an allocation of the Fed's operating costs is used to purchase Treasury securities. The interest earned on such securities is credited back to Treasury.) The net effect of subtracting these three additional estimated costs, averaging $184.3 million annually, from the estimated $502.5 million in gross savings would be an estimated overall annual net budgetary savings to the government of $318.2 million.

Our estimates are based on an assumption that 25 percent of the demand for 1-dollar notes would be met by 2-dollar notes and the remaining demand met by the new dollar coin, with no effects on other denominations of coins or notes. We based this assumption on the experience Canada has had with its dollar coin and on discussions with Federal Reserve officials.

Our savings estimate does not include the costs of disposing of the Susan B. Anthony coins because we viewed such a decision as not necessarily related to the proposed new dollar coin. The Mint estimated it would cost $8 million to melt down the inventory of Anthony dollars and recover the metal for future use. If such a decision were made, Treasury would also have to deduct $415 million of seigniorage previously recognized on the Anthony coins from the seigniorage recognized on future production of other denominations.

MAJOR OBSTACLES TO SUCCESSFUL INTRODUCTION OF A DOLLAR COIN

The savings to the government would be overwhelmingly dependent on wide acceptance of the dollar coin and substitution of it for the dollar note. Our interviews with trade and public interest associations and focus groups with the general public and people who handle cash as part of their jobs indicated that public reaction would be skeptical.

Among those who thought the benefits of a dollar coin would outweigh the problems were mass transit, convenience stores, fast food restaurants, and soft drink vending machine operators. However, grocery stores, gas stations, consumers, banks, and armored car carriers saw little benefit. Our focus groups showed that both the general public and people who handle money as part of their jobs were against the dollar coin, but the money handlers were less opposed. The general public thought the coin would be inflationary because prices of machine-purchased goods would be raised to the dollar, and additional costs of retooling vending and laundromat machines would be passed on to consumers.

Some, such as armored car carriers and the banking industry, thought that some of the government savings would come at the expense of additional costs being borne by the private sector, particularly coin processing and transportation costs. A

universal belief among those we interviewed was that if a dollar coin and a dollar note were both available, people would choose to use the note.

A dollar coin could be imposed on the American public, but this would require that Congress and the Administration reach and sustain an agreement to eliminate the dollar note. We are pessimistic this can be done in view of what happened with the Anthony coin and Treasury's lack of enthusiasm to change coinage in the absence of a public demand. A Gallup Survey last month showed that only 15 percent of the American population would favor abolishing the dollar note and replacing it with a coin. This is consistent with the results of our focus groups, although these results cannot be quantified nor can they be generalized to a larger universe.

Less formidable obstacles include possible difficulties of producing a coin readily distinguishable from a quarter but still acceptable to the vending industry, the Mint's ability to produce sufficient dollar coins to meet demand over a reasonably short transition period, and obtaining funding for a sophisticated public awareness campaign.

Mint officials said research and development funding of $300,000 was needed to resolve technical concerns they have with the proposed coin's size and alloy content. The Mint is uncertain

that technology exists to produce a 90-percent copper coin that would be gold in color but sufficiently durable to last in circulation. Further, the Mint and the vending industry would have to reach agreement on the size and alloy content of the new coin. The vending industry would like it to be the same as the Susan B. Anthony coin to accommodate existing machines that have been retrofitted to accept the Anthony coin, but the public would like a larger coin, sized halfway between the quarter and half dollar. While the Mint said it would take 18 to 36 months to resolve these problems, research and development programs for numismatic coins are typically done in 6 months.

AMERICANS DID NOT ACCEPT THE ANTHONY DOLLAR, BUT ITS INTRODUCTION WAS POORLY MANAGED

Even though Treasury, Mint, and Federal Reserve officials believed the Anthony dollar coin would not successfully co-circulate with the dollar note, no one came forth initially to advocate that the note be eliminated, knowing that such a proposal would not be popular with the public. In 1979, when Treasury let its intention of eliminating the note be known, the then Chairman of the House Subcommittee on Consumer Affairs and Coinage introduced a bill--along with 96 cosponsors--to prevent the elimination of the 1-dollar note. Treasury heeded this message.

In addition, the Susan B. Anthony coin failed because it looked too much like a quarter and lacked an effective promotion campaign.

Almost one-half of the 857 million Susan B. Anthony dollars produced from 1979 to 1982 remain in storage. We believe that if a new dollar coin is authorized and the dollar note is not eliminated, or is initially eliminated but later brought back because of a public outcry from its elimination, the dollar coin would face the same consequences the Anthony coin did.

The Susan B. Anthony experience is not conclusive proof that a dollar coin cannot be successful but does show a dollar coin will not succeed if its introduction is not properly managed. Elements that we consider essential to this end include:

--the dollar note must be eliminated and Congress and the Administration alike have to be firm in their resolve to make the change and be prepared to handle public resistance;
--a reasonably short transition period must be allowed;
--the coin must be clearly distinguishable from other coins and acceptable to the vending industry; and
--a sophisticated public awareness program is needed to lessen public resistance to change.

OTHER COUNTRIES HAVE HAD SUCCESSFUL CONVERSIONS

Australia, Canada, Japan, and the major western countries in Europe now use a coin for cash transactions at the level for which Americans use the paper dollar. We contacted six of these countries. Reasons given for converting from paper to coin included saving currency production and processing costs, easier use in vending machines, and improving the appearance of circulating currency.

Officials from all six said their conversion had faced public opposition and noted that elimination of the paper equivalent was essential. They said that the government must expect public resistance and be strong in its determination to convert. However, these countries differ from the United States in that they characteristically have parliamentary forms of government, making it easier to impose unpopular changes; have central banking systems, which gives the government more control over the banks; and produce currency and coins on a smaller scale than the United States. Treasury, Mint, and Bureau officials agreed that because of these differences, it would be much harder for the United States to successfully substitute a dollar coin for the note.

NO COMPELLING REASON TO ELIMINATE PENNY OR HALF DOLLAR

Although the penny has fallen to about one seventh of its original 1792 value due to inflation and is considered by some to be a nuisance, demand for it is strong. Consumers believe that rounding to the nearest 5 cents would cause merchants to raise prices and would disadvantage consumers, particularly the poor, who are most dependent on small cash transactions. The possible benefits claimed from rounding, such as faster cash transactions and lower handling charges for banks and merchants, have to be weighed against its disadvantages, such as bookkeeping problems, the cost of reprogramming automatic cash registers, and a loss of donations to charities. Further, because pennies cost about seven-tenths of a cent to produce and so many are minted each year, their production reduces Treasury's borrowing costs by almost $4 million annually.

Countries we contacted that did eliminate their low denomination coins did so when unit production costs exceeded the coins' face values. Other countries chose to continue production of low denomination coins costing more than their face value, believing the public would not approve of eliminating the coins. Although demand for the half dollar is relatively much lower and public feelings about it are muted, its production reduces Treasury's borrowing costs by almost $2 million annually.

Mr. Chairman, that concludes my prepared remarks. My colleagues and I would be pleased to respond to questions.

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Senator DIXON. Well, I thank you very much, Mr. Stevens.

I'm delighted to see the distinguished senior Senator from Florida, Senator Graham, here as well, and we'll recognize him in a moment for any questions that he might have.

Let me just say at the outset that I hear what Director Pope is saying. I also hear what you're saying, Mr. Stevens. I hear my distinguished colleague, the ranking member, Senator Garn, and I hear Mr. Kolbe when they say, you can't have a dollar coin unless you get rid of the dollar bill.

I, frankly, remain skeptical that that is true. I think there is a great possibility that there would be public acceptance of a decent dollar coin, readily discernible from the quarter.

I think we are too panicked by the Susan B. Anthony experience. I had a press conference in Chicago several days ago and I took out a bunch of Susan B. Anthony dollars and a bunch of these Canadian loonies and a bunch of quarters, and I had all the media people, people from the Chicago Transit Authority, people from the amusement machine company, handling all these coins.

My sense of it, after we'd had this public discussion, was that people were amazed at how easily you could discern the difference between the loony and a quarter, as distinguished between the Susan B. Anthony and the quarter. The Susan B. Anthony, while a little larger than a quarter, has those same ridged edges and it has the same silver color. This "Loonie" has 11 little indentations. It's slick. A sightless person can readily tell the difference. And it's a different color. It's a gold color.

I readily understand that if the public has no choice, they're going to accept the dollar coin. I don't want to put that to the people of America. I don't think we ought to force upon them or mandate upon them this dollar coin.

I honestly believe the public would be delighted to see a discernible dollar coin that they could use.

Now, for instance, I carried a few of these in my pocket for a few days to feel how it feels. Was it Mr. Kolbe that said, I always have a few quarters in my pocket?

Most of us who travel a lot do because you need change for everything you do out there. These things are no heavier than a quarter. They're quite comfortable in your pocket. Anything you purchase out of a machine nowadays costs a dollar or more. If you try to get one of those carts in the airport, you stick in a dollar bill, and half the time it kicks it back out and you're frustrated. You don't have the necessary number of coins.

Chicago Transit Authority says it will save them several million dollars a year if they can get a dollar coin instead of a dollar bill. One time, they were paying $21 per thousand just to sort them. They've got it down to $7 now, I'm told, but it's still a considerable cost.

You've pointed out the substantial loss in the duration of life of a dollar bill. Why is it that, on the basis of past experiences, where we didn't have an acceptable dollar, we keep coming to the conclusion that people wouldn't take a dollar coin that is discernible?

For instance, you had the Eisenhower dollar, a great big dollar. Then you had the Susan B. Anthony—it looked like a quarter. We've never tried something like a "Loonie".

So I'll put this to you, Mr. Stevens. Have any of these countries that say it just wouldn't work unless you took away the currency ever tried something that looked like this "Loonie" that could be readily distinguished right along with the currency?

COCIRCULATION

Mr. STEVENS. They've all had periods of cocirculation and have found that the public does prefer the note. This has been an actual experience. They haven't withdrawn it right away, so there's been some cocirculation.

I should point out also that the Gallup poll which was released last month actually asked people, a cross-section of Americans. We examined the methodology and found it satisfactory. They found 59 percent of the American public would take the opposite view. They don't want a dollar coin, even if it cocirculates with a dollar bill.

Senator DIXON. Then you are stating that, in your judgment, if we put out a coin that is readily discernible, nobody will use it?

Don't you think that some people will use both? What is the matter with having both? Your numbers will be different, but won't it still be a fact, when you properly extrapolate from all the things you've told me, that there will be some savings to the extent that they do use this coin?

Mr. STEVENS. Absolutely.

Senator DIXON. And won't that be helpful to the transit authorities all over America, in New York, Chicago, Atlanta, Denver, San Francisco, Los Angeles, San Diego, Miami, and all the big cities of America?

Mr. STEVENS. On a rational basis, Senator Dixon, I couldn't agree with you more. It has lots of advantages. The savings would indeed be directly proportional to its use.

Senator DIXON. Sure. Of course.

Mr. STEVENS. But the American public is not totally rational about its currency system. And I think Mrs. Pope probably has a long experience that would verify that.

Senator DIXON. While I respect that statement, why can't the American public be permitted to be selective?

If I hear the testimony correctly, to the extent that this coin is used, it's a savings. To the extent that this coin is used, it's useful to the people that want to use it. To the coin-operated machine people in this country, it would be a help. To every transit authority, it would be a help. To the people that want to have it, it's an accommodation.

If it actually saves some money, why can't we accommodate the people? Why do we have to force it down their throat? I don't want to do that.

If you look at S. 814, we do not mandate in S. 814 elimination of the currency.

Mr. STEVENS. Yes, sir.

Senator DIXON. I would not have cosponsored, incidentally, had we mandated elimination of the currency.

Director, you were going to say something, I think.

Ms. POPE. I was simply going to say that I wanted to reiterate that the Treasury Department doesn't want to do away with the

dollar bill, either. But the Treasury Department is also convinced, as GAO and all the other people we've talked about, that the public will not use— some will, but to what degree, we don't think very widespread—they would use a dollar coin.

Senator DIXON. Well, could I interrupt you at that point? I want to yield to Senator Graham because I'm taking up more than my time.

But let's say, just for the purposes of this discussion, Director, in all fairness, let's say that there would be 20 percent acceptance. I'm just randomly choosing a number. Twenty percent of the use of a dollar in the future would be to coin, and 80 percent would be the bill, by public choice.

What's the matter with that?

Mr. STEVENS. When we talked, for instance, Senator Dixon, to the grocery retail merchants, one of the things we were told was that a clerk who handles hundreds of customers a day is not going to pass a coin to a random person, 80 percent of whom, using your guess, would not want to get it.

Rather than hope that that person is one of the 20 percent who won't raise a fuss and/or an objection, he'll put it into the tray, pass it back to the bank, and it really won't achieve the objective of circulation in the economy.

Vending machines are the same way. The vending machine manufacturers do not want to alter their machines unless they are assured that there will be a very heavy penetration, that they won't have to accommodate two different kinds of currency at once.

If they don't change their machines, then the public won't find it as useful as it would be if there were no alternative.

Senator DIXON. Did you want to add to that, Director?

Ms. POPE. Just, amen. I mean, the vending machine industry, the last time around waited to see whether the public was going to accept it before they would go through the cost of changing their machines. And of course, the public didn't. We've got them. And the vending machines really didn't all change.

Senator DIXON. Senator Graham?

AMERICANS SHOULD HAVE A CHOICE

Senator GRAHAM. Thank you, Mr. Chairman.

I'd like to follow up on your line of questioning, which strikes me as if we're in a cultural warp here. If there is a word that is in general circulation today like the $1 bill, it is the word "choice." That's the word in education. Try to give students and parents more choice of educational opportunities.

We have out on the floor of the Senate this afternoon a housing bill which has a significant component of choice, to try to encourage people to have different alternatives in terms of their housing stock.

If we're in a period in which we're trying to encourage diversity and recognize individuality, it seems to me that there's no place that's more appropriate to do that than the one we're talking about.

You mentioned carrying around coins. I remember when I was a student and used to use the MTA on a regular basis, I carried

around a pocketful of MTA coins because they were easier to use than to fumble around with bills or with regular coinage.

I share the opinion of the Senator from Illinois. Why not let people have a choice? If you are in a situation where you believe that, for your purposes, the use of the coin would better suffice, that would be an option. If it's not, it will be the bill and it may well be that it will be the 80/20 split, but so what?

The Government would still accomplish the purpose of having reaped the benefit. Stores, I would imagine, would find out ways in which they would be accommodative of the customer, whatever that meant in terms of their particular customer profile. And the individual would have the convenience of the coins, if that was something that was meaningful to them.

Mr. STEVENS. Right now, there is a choice, Senator Graham. I mean, there are all the Susan B. Anthony dollars and if you're so motivated, you can get them from a bank. You can get $2 bills from a bank. You can get 50-cent pieces from the bank.

Customers very rarely do that, and the Treasury Department can give you some exact numbers on that. And I can't emphasize enough that the savings to the Government that we have projected are totally dependent on its use.

The seigniorage matter, in particular. These numbers just don't work if the public doesn't use the coin.

Ms. POPE. Senator.

Senator DIXON. Do you really think that the public would use this coin less than a half dollar? You just defended a minute ago keeping the half dollar on the very narrow grounds that it saves us $2 million a year. I betcha all the money in the room they'd use this more than the half dollar, because when I get a half dollar, I get rid of it as fast as I can. Too big in the pocket.

This is a nice, comfortable coin. I carried around a whole bunch of them for a few days to make sure that in my own personal acceptance, I felt it was a comfortable coin. Nice, comfortable coin. Looks different, feels different. I tell you that there are people in this country, as a matter of choice, that will use them, Mr. Stevens.

I don't know how much we'll save, but more than we save on the half dollar, and some people, I believe, are going to use them.

Now, I do respect Mr. Kolbe and others who are saying that we can do this. I don't want to vote for a bill to do away with the dollar bill. The public isn't ready to do away with the dollar bill.

Ms. POPE. No, they're not.

Senator DIXON. But I believe the public would be delighted to have a coin.

Ms. POPE. That's not what the focus groups and the Gallup Poll and the conversations that I've had with people during the 9 years that I've been mint director, they've talked to me about coins very much. Too much, they talk to me about coins.

I've had a lot of conversations with people who simply do not want to carry dollar coins. Peter Jennings had a show last night, I'm told, where they talked about this legislation and this bill and they interviewed people on the street—I don't know how scientific it was—but every one of the people that they interviewed were horrified at the idea of using a dollar coin and did not want to.

And the question was—I'm not sure whether it was really put to them, your dollar bill is going to disappear. It was the use of the dollar coin. And if only 20 percent of the people use the dollar coin, then the savings and the seigniorage sure slide down. We don't know how many of them to make. The vending machine industry that is so important to the use of a coin will not convert. And some of the countries even said the key is those people who are handling the money.

As Mr. Nye pointed out, those clerks are not going to be handing out dollar coins when they know that 80 percent of the people don't want them. And so, they will not circulate.

Senator DIXON. Well, Director, could I interrupt you to say this.

Had my colleague concluded, incidentally? I'm going to yield to my friend from Florida.

Senator GRAHAM. Mr. Chairman, I had essentially concluded.

We're dealing with a difficult cultural transition. I like dollar bills. I like George Washington. Feels good. Wish we had more of them, at least I had more of them.

I don't think that, given the essential individuality of the American, that we're going to very easily—and I doubt that this representative political institution is going to impose a change in the near future on the American people and say, you shalt not have your George Washington any more.

But I believe if you feel, and I think with some justification, that over time, a transition would be as desirable for the U.S. as the Canadians have felt it is for them, that introducing a coin that would gain broad acceptance, and I bet you would start to see some vending machines that would put the dollar on there so that they would appeal to the customer who wants to buy that 80-cent drink, and you don't have three quarters and a nickel to make the odd kind of change. And it would be convenient.

And so, people would begin to respond, not out of coercion, but because it met their individual needs and businesses would begin to adapt to that customer desire.

Senator DIXON. Would my colleague from Florida yield?

We all, believe it or not, whether you're a U.S. Senator or whatever your experience in life, or whatever you do, are motivated to some extent by our own personal experiences. I just want to tell you one of mine.

Senators live in airports. We're traveling all the time. Most of us have long since discovered that when you travel—and I'm sure my friend from Florida has had this experience—you'd better carry your clothes on your back. Don't check them through. You might lose the bag. You're going to have to wait.

I can tell you about airports in this country where you have to wait literally an hour to get the bag when you get to the airport.

So most of us have a nice, big bag that will carry two suits, a couple of shirts, everything we need. We can go back to our State, work the State for 4 or 5 days with the clothes on our back. That's how we travel.

Well, the first thing you do when you get to the airport, you try to find something to dump that heavy bag on, and they have those carts. Now, the cart has a place wherein you can put four quarters

and you can get the cart for a dollar. Now, if you don't have four quarters, you can slip in the dollar bill.

Every time I've got four quarters, I'm so happy because I've never had a time when you put in four quarters and couldn't get your cart.

I'm telling you, it's 50–50 whether you get the cart with a dollar bill. That sucker will spit out that dollar bill 50 percent of the time, either because there's something the matter with the bill or it's too crumbled or it's too old, or you get it in upside down.

The point is that I happen to believe that there are all kinds of machines like this that, once retrofitted, can take the coin or the bill. People will use these coins. I believe there is a useful service for the coin.

And I don't dispute the fact that you'll get more usage of the coin if you mandate it. There's a lot of things in this world you can mandate that we don't want to mandate.

I come back to the final point, which I would pursue with some vigor here and ultimately, if we mark up, on the floor.

There is some savings in it. I don't know how much. Not as much as you say. Not the $318 million a year forever. But there's some savings in it. There's a savings in it to the Government. There's a savings in it to every transit authority in the country, big or little. And there's some useful desire for this coin out there in the public.

I don't know how much. I'm pretty sure you're right. More people carry more dollars than coins. But I honestly believe that Susan B. Anthony was a terrible mistake, no question about it, and I think it really scares us. But I really believe a useful coin like this will have some acceptance.

Mr. STEVENS. Senator, on a rational basis, I just can't disagree with you at all. And I think the countries that we visited all say that none of them have regretted this decision. They all feel that the public has adjusted, that the negative reaction was an initial one, and that the coins are working fine. No one has gone back and changed their minds.

PUBLIC PREFERS PAPER MONEY

Ms. POPE. But if I might add, all those countries did do away with the corresponding bill.

Senator DIXON. Yes.

Ms. POPE. And from the reports that we've had from clerks, et cetera, in England, the clerks are not happy with the pound coin. If they had a note, they would be using the note and not the coin.

I was just told recently that the Bank of Scotland, even though you associate them with England, is printing notes and are not using the pound coin.

The Canadian experience is that as soon as they ceased production of their loon, the demand for the coin doubled, again, underscoring the fact that if people have the choice between the coin and the dollar, they are going to be using the dollar.

However, I do, before I leave this seat, have to point out again that the Treasury Department very clearly recognizes the unpopularity of the idea of forcing something on the American public, and that's why I continue to say that the Treasury Department does

not endorse the idea of doing away with the bill, but also is convinced that that is really the only way that it will circulate completely and cause any cost savings.

Senator DIXON. Yes. And you understand, I respect your opinion. I'm just interested in making our view known as well.

Yes, Mr. Stevens.

Mr. STEVENS. The public, and I'm not just talking about the American public, is conservative about currency. One of the things that our staff who interviewed Great Britain treasury officials learned, was that in 1914, when they made a change-over from a coin to a pound note, there was an immense hue and cry because of just that conservatism. People thought that they were substituting this trashy paper for something that was substantial and traditional and that they had adapted to and used. It took considerable political will to weather that storm in 1914.

I have no doubt that people would adjust here as well.

Senator DIXON. I think there's a lot of validity in the point you're just making. The very fact of change has some opposition out there, I think.

At some point in time, and I don't remember where it was, I saw some kind of a survey about changing the color of the bills. Many other countries, as we know, do this. The $5 bill is a different color than the dollar and the ten is another color, the $20 another color. Even the $50's and 100's, and after that, it doesn't matter to the vast majority of us.

But the point is, I think that there's overwhelming public opinion in the polls I've seen against doing that.

Now, from a standpoint of public convenience, I don't think anybody would argue about the fact that probably, in the long-term, it's more convenient to have different colors on the currency, but people don't want to do that in this country.

It's just that simple.

Well, I thank you both. You've been very valuable witnesses and we're indebted to you for giving us your valuable time.

Mr. STEVENS. Thank you.

Senator DIXON. The second panel will be: Mr. James C. Benfield, executive director of the Coin Coalition; Dan Bradley, president of the Washington Plate Printers Union; and Dr. Raymond Lombra, Americans for Common Cents. That's Cents, spelled C-e-n-t-s.

We thank you, gentlemen, for coming here today. We're delighted to have your views.

It looks like Mr. Benfield has a show 'n tell there. I'm ready when you are, Mr. Benfield. Take your time.

I'm an old trial lawyer. I like the demonstrative evidence. I see you have it right next to your chair.

Mr. Benfield.

STATEMENT OF JAMES C. BENFIELD, EXECUTIVE DIRECTOR, THE COIN COALITION, WASHINGTON, DC

Mr. BENFIELD. Thank you very much, Mr. Chairman.

Senator DIXON. What's this? Oh. You're sending this up here, Mr. Benfield?

Mr. BENFIELD. Just so you can see what we're talking about. It's a sampling of coins.

Senator DIXON. OK.

Mr. BENFIELD. I think you've seen them all.

Senator DIXON. Let the record show that Mr. Benfield sent me——

Mr. BENFIELD. You can return it if you like. [Laughter.]

Senator DIXON. And it will be returned to him, let the record show, a half dollar, a Canadian "Loonie," a Susan B. Anthony, a dime, a nickel, a quarter, and a penny.

Mr. BENFIELD. Thank you for the opportunity to testify this afternoon. My name is Jim Benfield. I'm a partner with the company, Bracy Williams & Company. I'm executive director of the Coin Coalition, a group of 21 trade associations.

There is a saying, if it ain't broke, don't fix it. The Coin Coalition is here today to suggest that a portion of our money system is in fact broken and that it does need fixing.

Well, what does a broken money system look like? And here, I've brought some examples.

This is a photograph taken in the cash room of the Chicago Transit Authority. These people are not counting $1 bills; rather, they are merely straightening them out. They go into the buses straight, but you can't drive the bus into a secure cash room, so they have to go into an intermediary vault and they get all mixed up.

This is another photograph of the same cash room. They have 30 employees, 20 part-time. The 20 part-time ones have been there for several years now. They spend 8 hours a day sorting about 300,000 $1 bills.

I checked with Jack O'Connor a couple of weeks ago. He tells me that it costs between $12 and $22 to count 1,000 dollar bills, depending on the overtime that they have to pay. On Mondays, they have about 400,000. Otherwise, it averages about 300,000.

Senator DIXON. That's interesting. I'd been told that they got it down to $7, but that it was at one time over $20. But, in any event, it costs a lot of money. No question about it.

Mr. BENFIELD. A lot of money. This is another example. This is the parking meter—I would say the parking meter of the future, except that I photographed this recently in Bethesda. This came from an all-day parking lot where meters required 16 quarters per day.

Well, by golly, most people didn't happen to have 16 quarters in their pocket. So what they did was they replaced it with this computer here. You have to be practically computer-literate. You have to punch in your parking space number, enter dollar bills. It doesn't give you change, but it does give you a receipt.

Senator DIXON. I'll never be able to park there.

Mr. BENFIELD. The public—well, the reaction of one commuter according to the Washington Post was, the person who invented this ought to be shot.

No place in the article did it even talk about a dollar coin, but clearly—and I know in downtown Chicago, right now, you're faced with eight quarters for 1 hour.

Parking is a planned purchase. You have to think about this in advance; otherwise, you're going to be hit with a parking ticket.

So I would guess that, within a few years, you're going to see these machines every block or two. There will probably be a sign saying, find a parking meter, a block and a half from here. You get to stand in the rain and deal with one of these machines.

This is a cartoon from the Washington Post. It ran in a column called Dr. Gridlock, where frustrated commuters can air their grievances with transportation, either highway or commuter public transportation.

Here, you see a man, he's spitting on it, or rubbing it, or ironing it, or just plain out of frustration, stomping on it.

Senator DIXON. I've tried all those methods.

Mr. BENFIELD. This is the connection. Why does this happen? Because 15 percent, industry-wide, in case you're wondering what the percentage is, 15 percent of all paper money is rejected. Less than 1 percent for dollar coin. And this is true whether it's a farecard machine or whether it's a vending machine. And the caption that you saw here is really the same thing that goes on in the cash rooms of all vending companies all over the country.

So this adds a huge, hidden cost.

Now, it's sometimes argued that a dollar coin would be inflationary. Actually, the reverse is true. Dollar-bill validators cost between $400 and $600. A coin mechanism costs $30 or $40. A vendor is going to pass those costs on to the customer one way or the other. They would much prefer to pass on a $30 or $40 cost, not the $400 to $600 cost.

The cost of counting a dollar bill we said was 3 cents per bill industry-wide in mass transit. Chicago would save, as you said, millions of dollars a year.

I've heard that the infrastructure needs fixing. Such as bridges and roads. I think it's a horrible waste of money for CTA to be spending millions of dollars straightening out dollar bills when bridges and roads need fixing.

Another thing that happened at the CTA is, as you know, recently, they issued a token. The old cash fare used to be 95 cents. They lowered it to 90 cents if you buy ten tokens for $9. If you pay cash, the fare went from 95 cents up to $1.25.

Well, what has happened? Did the public grab those tokens in large volume? Well, CTA's average paper bill count has dropped from 350,000 per day down to about 285,000.

This seems rather strange. Here, you're paying $1.25 instead of 90 cents. And I suggest that one explanation is that poor people may not have the $9 for tokens or $20 or $30 for a flashpass; rather, they have to come up with $2 or $3 every day to ride transportation. So they're the ones who are being hit with the cost of not having a token.

So, I suggest that maybe a dollar bill becomes rather expensive for poor people, at least when it comes to riding mass transportation.

And finally, on inflation, we're not talking about future inflation. This is inflation that's already occurred. We've had a 4-fold increase in the CPI since the mid-1950's. So today's dollar is nothing more than the quarter of the 1950's.

I list among our supporters the visually impaired. All paper money feels alike. Coins, they can differentiate. And I should say,

that if the dollar coin continues to circulate in large numbers, people could still sneak in a one and say it is a ten.

One of the advantages of getting rid of the $1 bill is that it assures the visually handicapped that bill is no longer in circulation. So that helps their confidence.

We've talked about the SBA—Susan B. Anthony—failure. Clearly, if the dollar bill had been removed, the Anthony dollar would have worked. The coin would have been unpopular. It was confused with the quarter. In my opinion, it deserved to die. But it would have circulated.

Now I'm going to spend a little bit of time on the need to phase out the dollar bill. This is clearly the tough part of the entire debate.

Let me begin by saying that I think dollar bills in fact are rejected by the public, in a manner of speaking. I'm going to trace the path of money through the economy.

When I go to an automatic teller machine, or to a bank, I don't ask for a lot of singles or a roll of quarters and pennies so that I can make exact change purchases. As a matter of fact, I've never seen an automatic teller machine that gives out anything less than a $5 bill.

So I start with $5's, $10's, and $20's in my pocket. Then I go to a cash retailer, a grocery store, a drug store, convenience store, movie theater, whatever, and then I pay with large bills. If he's a smart, prudent manager, he's going to want to get me out of that line as quickly as possible. So he'll give me the minimum number of coins. Then he's got his cash drawer [holding up a cash drawer] configured, $1, $5, $10, $20, and over here he's got checks, VISA's, money orders, food stamps, whatever.

Here, penny, nickel, dime, quarter, and here he's got rolls of pennies, nickels, dimes and quarters.

Gee, there's no room for a $2 bill here. There's no room for a 50-cent piece. There's not room for a dollar coin, either. And why should he change? He's already got a dollar bill that he thinks does the job.

You won't hear much from cash retailers on this issue at all because they don't have to lobby Congress. All they have to do is not use the coin, and kill it outright.

What we think would happen with a dollar coin is that the $20s would have to go under the cash register, and you see a lot of cash retailers do that now. The spare rolls would go up here where the $20s were, and in here would go the dollar coins.

What about over here? This is where the $2 bill now goes.

So this is the key point. And what happens when the coins leave the cash register? Now, when I've got coins and $1 bills, I go to the vending industry or mass transit, parking meter, pay telephone, whatever.

They vacuum the small stuff out of circulation. So the mere fact that vending or mass transit wants this coin doesn't mean it's going to succeed. They don't push dollar coins out there. The coins come from the cash retailer. The vendors take it out of circulation.

So the cash drawer is the critical point in the entire flow of money debate. If the cash retailer uses it, it works; if he doesn't, it fails.

Senator DIXON. Thank you, Mr. Benfield. If I can go along to Mr. Bradley now.

[The complete statement of James Benfield follows:]

Statement of James C. Benfield
THE COIN COALITION
Before the Senate Banking Committee
Coinage Reform Act of 1989, S. 814
June 20, 1990

Introduction

Mr. Chairman, thank you for the opportunity to testify this afternoon. My name is James C. Benfield. I am a partner in the consulting firm of Bracy Williams & Company and the executive director of the Coin Coalition, a group of 21 trade associations.

There is a saying: "If it ain't broke, don't fix it." The Coin Coalition is here today to suggest that a portion of our money system <u>is</u> broken. And that it <u>needs</u> fixing.

The United States currency system, fundamentally unaltered during this century, is in desperate need of change -- specifically, a dollar coin. The expense and inconvenience of a system that is predominantly paper will become more apparent, because inflation continues to increase the quantity of paper notes needed for relatively small cash transactions.

With paper bills, we cannot make a long-distance call on a pay phone, buy a Sunday paper from a street box, drive through a toll booth, or use a long-term parking meter. We wait as subway fare machines reject, then slowly accept bills. A well-designed $1 coin would not only help reduce government spending, eliminate the need for costly mass transit fare-box conversions, and help hold down the cost of vending machine products, but it also would remove various hidden costs of the outmoded $1 bill. A $1 coin would remove numerous inconveniences from modern life.

Inflation

Some opponents of a new $1 coin say that it will be inflationary. In fact, relying on $1 bills is inflationary for several reasons.

Bill validators for vending machines cost between $400 and $600, costs that are passed on to the consumer. The additional cost for a $1 coin mechanism, integrated into the mechanism for nickels, dimes and quarters, would be between $30 and $50 -- a cost also passed on to the consumer. Vendors and amusement game operators would prefer to pass on the lower cost.

The chief competitors of the vending industry are convenience stores. Market pressures will keep vendors from "charging a buck for a Coke." If vendors had planned to charge $1.00 for a soft drink, they would have done that with the claim that $1.00 bill validators couldn't make change. That never happened.

Mass transit spends about 3 cents to count a $1.00 bill. The cost of counting a coin is a fraction of that amount. Having to count $1 bills causes a more rapid increase in transit fares.

The inflation that requires a $1 coin <u>has already occurred</u>.

During the 30 years between 1957 and 1987, the Consumer Price Index increased from 84.3 to 338.7 -- a four-fold increase. In other words, today's dollar is the quarter of the 1950s. (See Appendix II for list of common purchases in 1957 and 1987.)

Government Spending

According to the General Accounting Office study (GAO/GGD-90-88), the government would save $318 million in "present value dollars" annually if a coin replaced the dollar bill. One reason: Coins last about 30 years while bills only 17 months. Although coins last 21 times longer, they have only a slightly higher initial material and minting cost -- 6 cents for a coin versus about 2.6 cents for a bill. The Coalition believes these GAO figures may understate the true savings, as new anti-counterfeiting measures for paper bills probably will increase costs.

In addition, without prompt currency reform, many mass-transit authorities (which receive federal subsidies) will be forced to refit buses with new, expensive fare machines to accept dollar bills.

The New York City bus system has an easy solution to the paper-dollar problem: It doesn't accept them. No token or change, no ride -- in spite of the phrase "legal tender for all debts" printed on all U.S. bills.

Visually Impaired

The visually impaired are concerned about the ability to differentiate among various currency denominations. If there were no $1 bills in circulation, small purchases could be made by coin without fear of accidentally spending a large bill or of being cheated when receiving change.

The benefits of a $1 coin to the visually impaired would be marginal if the $1 note continued to circulate.

The Susan B. Anthony $1 coin

The last time a $1 coin was introduced in the United States -- the Susan B. Anthony in 1979 -- it was firmly rejected. The GAO studied the failure of the Anthony dollar, and concluded that the most serious problem was the failure to remove the $1 bill from circulation. Cash retailers didn't want to count and store both paper and metal dollars.

Additionally, the coin was confused with the quarter, mainly because of its similar silver color and reeding. That is why the Coin Coalition advocates a gold-colored coin and one that has a smooth edge (like a nickel), as opposed to a reeded edge like the quarter. These two changes are sufficient to insure easy differentiation from quarters. The Coalition opposes changing the physical dimensions of a new $1 coin, as this would require the vending/coin operated industries as well as the mass transit industry to change all the machines that have been designed to

handle the Anthony dollar. Any change in the dimensions would cost these industries millions of dollars.

Furthermore, Canada has successfully introduced the gold-colored "loon" $1 coin, which is the same size as the Anthony $1 coin.

Even though the Anthony dollar does not circulate among the public at large, it is an important coin in many specific operations. Following are some entities currently using the Anthony dollar:

Mass Transit and Toll Road
Metro-Dade County Transit Agency, Miami, FL
Harris County Toll Road Authority (Hardy Toll Road), Houston, TX
Long Island Railroad, Jamaica, NY
Mass Transit Administration of Maryland, Baltimore, MD
Metro North Commuter Railroad, New York, NY
New Jersey Transit, Newark, NJ
Port Authority Trans Hudson (PATH), Port Authority of NY and NJ
Port Authority Transit Corporation, Lindenwold, NJ
San Francisco Municipal Railway System, San Francisco, CA
South Eastern Pennsylvania Transit Authority, Philadelphia, PA

Vending
Goodman Vending, Reading, PA
Griswold Inn, Essex, CT
Royal Service Inc., Seattle, WA
Smarte Carte, Inc. (airport cart rentals), White Bear Lake, MN
TraveLoc (locker rentals), Sea Island, GA
U.S. Postal Service, Engineering & Technical Support Dept.,
(Although the USPS is not using the SBA to any degree at present, they are committed to major use of them in the near future.)
Zaug's Vending, Appleton, WI

While the Anthony dollar was a failure from a design and execution standpoint, the taxpayer suffered no financial loss. In fact, because of governmental accounting rules, the government continues to make money with the Anthony dollar.

Seigniorage

Each Anthony dollar cost about 3 cents to manufacture. The 856 million Anthony dollars cost the U.S. Mint about $26 million dollars. However, the Treasury kept the difference between the manufacturing cost plus the value of the metal (3 cents) and the face value of the coin ($1.00). This 97-cent difference, called seigniorage, came to about $830 million, which was used to reduce the deficit by that amount. Because the seigniorage was used to reduce the federal deficit, $830 million did not have to be borrowed. At a modest interest rate of 8%, this saves the taxpayer about $65 million annually on debt service payments -- more than the original cost of manufacturing the coins.

In addition, the scrap value of the Anthony dollars, if melted down, would recover most of the original manufacturing costs. The

scrap can easily be "diluted" with nickel to achieve the 75% copper, 25% nickel (cupro-nickel) alloy used for five-cent pieces and for the clad surface of dimes, quarters and half dollars.

If the Anthony 400 million dollars in storage were melted down today, the accounting entry would have to be reversed, and over $400 million would instantly be added to the federal deficit.

The House bill, H.R. 1068, addresses this issue by stating that "Seigniorage from production of dollar coins referred to in section 2(a) shall be used to offset the reverse seigniorage resulting form the destruction of the Susan B. Anthony coins in Government storage." Without this provision, the government could continue to hold the Anthony dollar in storage and collect the seigniorage on the new dollar coin.

The Need to Replace the $1 Note

The Coin Coalition absolutely agrees with the GAO that the $1 Federal Reserve Note must be replaced, if a new $1 coin is introduced. The reasons are numerous.

Planning. The mass transit and vending industries will be required to alter their automatic coin and bill accepting equipment at a cost of millions of dollars. Prudent managers would wait to see if the public preferred notes or coins; public opinion polls would say notes. Thus, these industries will not alter machines unless they can be <u>assured</u> that the $1 coin will circulate. Further, a legislated phase-in date will permit these expenditures in the most timely and efficient manner. Having equipment ready when the new coin is introduced will avoid a "chicken and egg" problem.

If vending machines and mass transit authorities have to have equipment to count <u>both</u> $1 coins and $1 notes there would be no savings in equipment costs. This would be necessary if $1 notes are not eliminated.

Cash retailers. Most cash retailers have ten position drawers, five for paper and five for coins. The five paper positions are often used for $1, $5, $10, $20 notes, with the fifth position used for checks, charge slips, food stamps, etc. The coin slots are used for 1, 5, 10, 25-cent coins, with the fifth position often used for spare rolls of coins.

Under the proposed changes, a cashier must find places for both the $1 coin and the $2 note. The current space for the $1 note is the logical place for the $2 note. The $1 coin would go in the fifth position used for coins. Checks, or $20 notes would have to go under the drawer to make room for spare rolls of coins, or another location must be found for spare rolls of coins.

Continued use of the $1 note would not only create a logistical problem in the cash drawer, but $1 notes would be a nuisance when received along with $1 coins.

Cash retailers would choose the $1 note when going to the bank because they are used to it; a new $1 coin would not stand a chance.

Having to handle both a $1 coin and $1 bill would be the worst case scenario. For that reason, the Foodservice & Lodging Institute and the National Association of Convenience Stores support a $1 coin only if the $1 note is removed from circulation.

Flow of currency. Bills and coins enter and move through the economy in different ways. Large bills begin at Automatic Teller Machines (ATMs) and at bank teller windows. Individuals usually do not ask for excessive amounts of small bills and coins at banks. And most ATMs do not dispense denominations lower than $5 bills. Large bills are carried by individuals to cash retail establishments: grocery, convenience, drug stores, quick service restaurants, movie theaters, etc.

Cash retailers accept the large bills, and give $1 bills and coins in return. The individual now has the $1 bills and coins necessary to use in vending machines, parking meters, pay phones, and mass transit fare-boxes.

These industries "vacuum" up the coins and $1 bills. The coins and $1 bills are counted and sorted, then returned to banks where they are recycled to cash retailers.

It is sometimes said "if the vending and mass transit industries want a $1 coin, let them use some of the 400 million Anthony dollars stored in Federal Reserve vaults." Unfortunately, it is the cash retailer that must use $1 coins in order for the vending industry to receive them from the public.

For example, the Mass Transit Administration of Maryland (MTAM) uses Anthony $1 coins like a token in the Baltimore subway system. But it must go to the bank, stock the coins, and process the $1 notes it receives for Anthony dollars. The Baltimore system would save over $300,000 annually if the public entered the system with $1 coins in hand. The MTAM supports a $1 coin, but only if the $1 note is removed.

Phase-In Period of $1 coins. The GAO study assumes a five-year phase-in period. This is too long. The Royal Canadian Mint says that one error it made was waiting too long to begin the phase-out of its $1 note. The Canadian $1 "loon" coin was introduced on July 1, 1987, and the last $1 note issued July 1, 1989. The phase-in was virtually complete by the end of 1989. During the phase-in, there was a perception by the media that the coin was failing because it did not circulate in large numbers initially. This problem would not have happened with an earlier phase-out of the Canadian paper dollar.

With savings of $318 million annually, it might be cost effective for the U.S. Mint to purchase six blanking presses and

three annealing furnaces at $4.5 million (triple the GAO estimate needed for 5-year phase-in).

If this is not possible, then an inventory of least a four billion $1 coins should be established before the first $1 coin is introduced to the public.

The Federal Reserve System should begin withdrawing $1 notes 12 months after the coin is introduced. A sufficient inventory of $2 notes should be established to meet anticipated demand.

Industry preparedness. Most vending machines manufactured since 1979 have the capability of accepting Anthony dollars. Changing the diameter or thickness of a new coin would cause more than half the 4.5 million vending machines in the United States to be refitted with new coin mechanisms. A change would also affect most transit systems, whose fare-boxes are designed to take an Anthony-sized coin. The U.S. Postal Service is purchasing 9,000 automatic stamp vending machines later this year that will dispense Anthony dollars. Those machines also would have to be retrofitted.

Many bill acceptors currently used on vending machines are designed to take $1, $2, $5, $10, and $20 bills. A selector switch on the back of the machine determines which bills will be accepted. Thus, most of the industry is ready to handle both a new Anthony-sized coin and the $2 bill.

(The reason Canada used the same diameter as the Anthony dollar for the "loon" dollar is that many vending machines used in Canada are manufactured in the United States, and these machines were ready to accept coins having Anthony specifications.)

Foreign Experience: No country has successfully introduced a high denomination coin without removing the equivalent paper note. Following is a list of countries that have high-denomination coins:

Country	Coin	U.S. equivalent
Spain	500*/200*-peseta	$4.81/$1.92
Switzerland	5/2 Swiss francs	$3.49/$1.40
Japan	500*/100-yen	$3.25/$0.65
Denmark	20*/10-kroner	$3.12/1.56
Germany	5/2 Deutsche Mark	$2.96/$1.18
Netherlands	5*/2.5-guilder	$2.63/$1.32
Mexico	5000-peso	$1.76
United Kingdom	1-pound*	$1.71
Australia	2-dollar*/1-dollar	$1.55/$0.78
France	10/5-franc	$1.76/$0.88
Norway	10*/5-krone	$1.55/$0.77
Finland	5-markka	$1.26
Canada	1-dollar*	$0.85
Sweden	5-kroner*	$0.82
Singapore	1-dollar*	$0.54
Italy	500-lira*	$0.40
United States	quarter dollar	$0.25

*issued since 1980 (exchange rates as of 6/15/90)

Quantity of $1 Coins Needed for Circulation

Several factors affect the number of $1 coins that the United States will need to replace its $1 notes. The Coin Coalition generally accepts the GAO estimate that "7.5 billion coins would be needed initially to replace the 1-dollar notes that would be in circulation . . ." (page 39). This number might be reduced if $2 notes achieve wide circulation. Increased use of $2 notes might be desirable to shorten the phase-in period from the five-year period suggested by the GAO. The Coin Coalition believes that the total phase-in must be less than 18 months.

Most western nations find that their notes last from 9 to 12 months. The Treasury Department has always maintained a life cycle of 18 months. The GAO estimates an average life of 17 months, and even Bureau of Engraving & Printing (BEP) Director Peter H. Daly told a House appropriations subcommittee on February 28, 1990 that "Higher than anticipated withdrawal rates for worn currency at Federal Reserve Banks have reduced the system's currency note inventories, and therefore, the Federal Reserve has increased its order by 14% for fiscal year 1991."

The GAO used a constant 1.4 years (16.8 months) for the purpose of its study. The Coin Coalition believes that there will be a declining life cycle for $1 bills due to increased velocity, and more rugged and careless treatment by the public, because of ever decreasing purchasing power.

This will lead to further inconvenience to the general public, because worn bills are rejected by bill acceptors. The alternative is to have the BEP print bills at an increasing rate, as is suggested by Director Daly's remarks. If the "windows of acceptance" are widened for worn bills, the machines are susceptible to counterfeit bills. Currently, bill acceptors reject about 15% of all notes, versus about a 1% rejection rate for coins.

Estimating the longevity of $1 notes is made difficult because the U.S. Dollar is an international currency. It is the primary currency of Liberia, and is an important currency in Panama, Laos, and Poland. It is widely used in many other countries. U.S. currency used in foreign countries is not replaced as frequently as bills that circulate domestically, thus increasing the average life of all U.S. currency. We suggest that the life of bills used in the United States is considerably less than 17 months.

Even though the Coin Coalition advocates the phased removal of the $1 note, it should be emphasized that the $1 note will remain legal tender along with all notes and coins ever produced by the United States government.

Velocity of coin versus paper. Coins tend to be inventoried in far greater numbers in vending/coin-operated machines than do $1 bills. To build up inventories, more $1 coins will be needed. This is born out by the experience of Canada and Australia.

Use of $2 bills. Many people object to a $1 coin because of "too much weight in the pocket." A $2 note is a logical option, in the same way that a $20 note fits between the $10 and $50 notes. Based on the Canadian/Australian experience, the $2 bill will become very

popular once the $1 bill is removed. The $2 bill will not see wide-spread circulation until the $1 bill is mostly removed from circulation, because cash retailers will have no room in cash register drawers for the $2 bill.

Lost/Unclaimed/"Keepsake" $1 Notes. In Canada, 311 million $1 notes were carried on their books in 1989, and 515 million $1 "loon" coins have been minted to date. Only 132 million notes have been pulled from circulation to date, leaving 179 million, or 55%, of Canada's $1 notes outstanding. Canada issued the $1 "loon" coin on July 1, 1987; stopped issuing $1 notes on June 30, 1989; and completed the transition to the $1 coin before the end of 1989. No $1 notes currently circulate. Australia had a similar experience with unclaimed $1 notes.

GAO Study

The Coin Coalition generally accepts the findings of the GAO study. However, it takes serious issue with the conclusion that "some government savings will come at the expense of additional costs being borne by the private sector, such as additional coin processing and transportation costs." (page 29) That is not true for the members of the Coin Coalition, which represents the largest handlers of coins and $1 bills, with the exception of the banking industry and armored car carriers.

The Coin Coalition suggests that money handling by these institutions is a "profit center," much as photo copying and FAX machines are profit centers for law firms. The banking industry and armored car carriers make money by handling money. The proposed elimination of pennies and replacement of $1 notes with $1 coins and $2 bills could decrease the handling of small coins and bills by up to 40%, thus reducing the service charges these institutions can charge customers.

Unfortunately, the GAO did not study how much banks charge for handling notes and coins.

The Coin Coalition also suggests that the $41 million annual production and processing costs savings estimated by the GAO may be understated. Using a simple methodology outlined by William H. Wallace, Staff Director for the Federal Reserve Bank, at House Banking Committee hearings on September 25, 1979 -- and substituting GAO cost estimates -- the Coin Coalition estimates production cost savings <u>alone</u> of $110.4 million. The production and processing savings of $50 million cited in the 1979 testimony are generally accepted numbers for that time period.
(See Appendix I.)

Suggested Amendments to S. 814

1) **Change:** Drop the specific mention of Columbus. **Reason:** The 1992 deadline for introduction of a new coin probably cannot be met. Congress should choose the design for a new coin.

2) **Change:** Lower from 90 to 80 percent the copper content and add a requirement that the new coin should have "similar metallic, anti-counterfeiting properties as existing United States coinage."

Also, add a requirement that the coin be 26.5 mm in diameter, the same as the Anthony dollar. **Reason:** Altering the metallic content from the existing standard would force most vending machines to be retrofitted with new, anti-counterfeiting equipment. Most coins are validated by the unique electromagnetic "footprints" of the cupro-nickel alloys used for dimes, quarters, and Anthony dollars. Lowering the copper content to 80% will give the Mint greater flexibility in finding the best alloy.

Changing the diameter of a new coin could cost the vending and mass transit industries in excess of $1 billion.

3) **Change:** Legislate the active removal of the $1 note from circulation. The Congress must express itself clearly on this essential measure, even though the Treasury has the authority to stop issuing the note without this provision. The Coin Coalition would urge the Administration to veto legislation not calling for the phased removal of $1 Federal Reserve Notes.

4) **Change:** Drop the requirement that the Treasury study the feasibility of rounding final cash transaction to the nearest five cents. **Reason:** The penny debate should be decided on its own merits at a later date, if at all. The Coin Coalition believes that the greatest economic benefits to the United States are derived from the issuance of a $1 coin. It is not necessary to remove the one-cent piece in order for the $1 coin to succeed.

5) **Change:** Add a provision requiring that Anthony dollars be melted down on a one-for-one basis with new coins. **Reason:** There should be no temptation to take seigniorage on the new $1 coin without first melting down the old Anthony dollars.

6) **Change:** Add language about the $2 bill. **Reason:** A well-ordered system should have a $2 bill in its inventory, and this will be a clear signal that the public has a paper alternative to the $1 coin.

The Coin Coalition endorses language in Appendix III on the above points.

The One-Cent Piece

Most members of the Coin Coalition have few economic reasons to be rid of the one-cent piece, the "penny." Research is presently being conducted by a national retail chain to account for the internal costs of using the penny. This study may examine some or all of the following: 1) the bank service charges for rolled coin, currently thought to be about 6-cents for a 50-penny roll. Rolling the 12.8 billion pennies (the Mint's 1990 output) will cost the U.S. consumer $15,360,000, assuming that each penny is rolled only once a year, 2) the cost of paying cashiers to count pennies at the end of a shift, and 3) the time lost using pennies when checking out customers.

In 1987, the National Association of Convenience Stores estimated that an average of two seconds is spent handling pennies during each of its members' 10 billion annual transactions -- a total of 5.5 million hours costing an estimated $22 million in lost productivity.

USA Today reported on September 29, 1988 that "Some days the [U.S. Bank of Oregon] packages 30,000 rolls of pennies, 50 cents to a roll, for its 212 branches and 200 other banks and stores." At 6 cents per roll, this would cost would $1,800.

Not considered by GAO is the possibility that at some future date, the penny may lack utility. If this happens at any time in the future, the pennies will flow back to the Federal Reserve where they will have two options: 1) melt them down, thus causing a reverse seigniorage entry (the entry would amount to $128 million for the 1990 production of pennies), or 2) store them next to the Anthony dollars.

The problem is not parallel with the Anthony, because 8.1 cents interest on the national debt is saved by each Anthony dollar (8.4% x 97 cents) each year, more than double the 3 cent original production cost the coin. However, the interest on the $0.003 cents seigniorage on the penny is only $0.000252. Thus, it will take about 27 years to recover the $0.007 production cost of the penny with interest saved on the national debt.

Although many pennies are thrown into landfills, evidence of penny hording suggests that most pennies minted are in possession of individuals.

The Price Rounding Act of 1989, H.R. 3761, says that final cash transactions will be rounded up or down to the nearest nickel. Payments by check, credit card, money order, etc. would not be affected. The rounding scheme is demonstrated in this graphic.

Following is a brief summary of the positions of Coin Coalition members:

American Amusement Machine Association. Manufacturers of amusement games. Dollar bill validators add $400 to $600 to the cost of each machine sold to amusement game operators.

American Council of the Blind. If there were no $1 dollar bills in circulation, small purchases could be made without fear of accidentally spending a large bill or of being cheated when receiving change.

American Public Transit Association. Coins can be processed more cheaply than bills. Boarding times are faster on buses, security is better, and the threat of counterfeiting is reduced.

Amusement and Music Operators. Coin mechanisms are cheaper than bill validators, and they can be used without electricity on pool tables and other free-standing amusement games.

Citizens Against Government Waste. The 350,000 member CAGW, an outgrowth of the Grace Commission, supports the $1 coin proposal. It would save the government $318 million, because coins last longer the bills. Tax supported public transit authorities would also save millions of dollars.

Coin Laundry Association. Bill validators cannot be placed on individual washing machines and dryers. Dollar coins would greatly reduce the volume of coins needed in the coin-operated laundry business.

Copper and Brass Fabricators Council. If a copper alloy is used for the new $1 coin, fabricating the strip for the Mint would create additional jobs and revenue in the industry.

Copper Development Association. If the Mint selects a copper alloy for the coin, there would be increased productivity in this industry. Dimes and quarters are 92% copper. Copper is used by most countries for coinage because it is malleable, and its high conductivity makes it a good metal for electronic validating.

Foodservice & Lodging Institute. For quick service restaurants, coins are faster to handle at the cash register than bills. The elimination of pennies also would speed transactions, reduce bank service charges, and reduce the time needed for clerks to clear their registers at the end of the day.

International Association of Amusement Parks & Attractions. Many IAAPA members own and operate amusement games (see AAMA and AMOA above) as well as run foodservice operations, where coins are faster to process than cash.

Italo American National Union. Supports commemorating the 500th anniversary of Columbus' voyage to the New World on the $1 coin.

Multi-housing Laundry Association. Same position as Coin Laundry Association.

National Association of Concessionaires. Handling coins is faster than handling paper, which is particularly helpful at stadiums when sales are highly concentrated during breaks in athletic events. Wet bills are dirty to handle in a foodservice setting.

National Association of Convenience Stores. Same position as the Foodservice & Lodging Institute.

National Automatic Merchandising Association. The forced use of bill acceptors due to the failure of the Susan B. Anthony dollar coin to circulate has added major cost ($400) to each vending machine so equipped. As higher denomination bills are used in these acceptors to make vending purchases, large quantities of quarters are dispensed in change, rapidly exhausting coin bank reserves and prematurely putting machines out of service until quarter supplies are replenished. Customers are also weighted down with the numerous quarters they receive. The increased equipment investment also shrinks returns, which are already marginal for most vending businesses. For machines without bill acceptors, inflation has caused the number of coins needed to purchase many products to increase dramatically. Unit sales decline as the number of coins needed to make a purchase increases. The future of many, if not most, of the small businesses and the 100,000 plus people employed in this industry will be seriously threatened without a widely circulating $1 coin.

National Campground Owners Association. Campground owners offer many coin-operated services to their customers including public telephones, amusement games, vended merchandise, and coin laundries. Dollar coins would aid in marketing all these services and would substantially reduce the handling and processing time now associated with paper currency.

National Coffee Service Association. NCSA represents the office coffee service (OCS) industry of approximately 3,500 companies serving over 88 million customers. Many of the OCS operations provide a wide variety of table-top as well as full-line vending machines and this involvement in vending justifies our support of the $1 coin.

National Parking Association. Parking meters will soon lose their ability to collect revenue. Fees in downtown Washington, D.C. are 8 quarters for two hours. In 10 to 12 years, that could rise to 16 quarters.

National Soft Drink Association. The vitality of the vending industry is important to the soft drink industry, as a significant portion of industry sales are generated through vending.

Public Telephone Council. Dollar coins would provide greater access and convenience for migrant workers, the armed forces, students, and other persons who do not have credit cards.

RP Foundation Fighting Blindness. Same position as the American Council for the Blind.

Randolph-Sheppard Vendors of America. As blind businessmen who handle large quantities of money on a daily basis, they share the same concerns as other businessmen in the cash retail industry. They want a coin that has unique surface qualities, in addition to an unreeded edge.

Smarte Carte Inc. As a provider of rental carts in major airports and transportation terminals, Smarte Carte must use (12-volt) battery-operated bill validators in their free-standing rental machines. A dollar coin would help them reduce operating costs, as coins are more reliable and easier to count.

Snack Food Association. Same position as the National Soft Drink Association.

TravelLoc Inc. TraveLoc rents wall lockers in major transportation terminals, using quarters and Anthony dollars, which must be provided for the customer in bill changing machines. A circulating dollar coin would reduce cash flow needs and cash handling.

At the same time, we must do all we can to assure the success of the new coin. Considering the recent experience with the $2 bill and the widely held concern that market acceptance of the $1 coin may not materialize, one available option which a joint Treasury/Federal Reserve task force has recently recommended would be to develop a plan to systematically replace $1 notes with $1 coins and $2 bills. Whatever future steps are decided upon, the Federal Reserve believes that the potential significant cost savings associated with substitution of a durable coin for paper money—such as that contemplated by issuance of the Susan B. Anthony dollar—should not be ignored.

COST BENEFITS OF THE ANTHONY DOLLAR

I. Comparison with $1 note	1979	1990
A. Production cost		
Anthony dollar=$.03.	new dollar	$.06*
Average life=15 years.		30 years*
Average annual cost ($.03÷1.5 years)=$.002.	($.06 / 30 yrs.)	$.002
$1 note=$.02.		$.026*
Average life=1.5 years.		1.4 years*
Average annual cost=($.02÷1.5 years)=$.013.	($.026 / 1.4 yrs)	$.01857
$1 notes in circulation=3.1 billion.	at 1/31/90	4.6 billion
Annual cost of maintaining $1 notes in circulation=$40.3 million.		$119.6 million
Annual cost of maintaining $1 coins in circulation=$6.2 million.		$9.2 million
Production cost savings ($40.3 million—$6.2 million)=$34.1 million.		$110.4 million
B. Processing cost		
Currency processing cost/1000 notes=$3.849.		
Coin processing cost/1000 pieces=$.381.		
Annual cost of processing $1 notes=$17.7 million.		
Annual cost of processing equivalent number of $1 coins=$1.7 million.		
Processing cost savings ($17.7 million—$1.7 million)=$16 million.		
C. Total cost		
Currency total cost=$58.0 million per year.		
Coin total cost=—7.9 million per year.		
Total savings with $1 Coin=$50.1 million per year.		

* GAO estimates

II. Comparison with Eisenhower dollar

Annual demand for Eisenhower dollar=80 million.
Production cost of Eisenhower dollar=$.08.
Production cost of Anthony dollar=$.03.
Net savings per coin ($.08—$.03=$4 million.
Annual savings (80 million×$.05)=$4 million.

Chairman ANNUNZIO. Thank you, Mr. Wallace, for your statement. I have one question at this time: Is the Federal Reserve Board planning to eliminate the $1 bill?

Mr. WALLACE. No, sir, we are not definitely planning to do that. I know that Governor Coldwell's comment has been quoted here this morning. I am sure that it is safe to say that Governor Coldwell did not intend that remark to be interpreted to mean that we are planning any kind of unilateral action.

Chairman ANNUNZIO. As we look down the road and see the future, can the subcommittee and I, as chairman of the Consumer Affairs Subcommittee—can we say, or believe, by your remarks, that the $1 bill will be here for the next year or two?

Mr. WALLACE. Until such time as a decision is made to eliminate them. And we have held all along, Mr. Chairman, that that decision would have to be a joint Federal Reserve/Treasury decision, and it would have to be made in consultation with the Congress. We have never advocated anything else.

From testimony before the House Committee on Banking by William H. Wallace, Staff Director of the Federal Reserve Bank. September 25, 1979.

Appendix II

INFLATION and COINS

	1957	1987
Washington Post, daily	$0.05	$0.25
Sunday	.20	1.25
Soft drink, vended	.10	.60
Pay phone, local call	.10	.25
New York subway fare	.15	1.00
Bread, 1 pound	.19	.70
Milk, 1/2 gallon	.23	1.06
Ground beef, 1 pound	.42	1.49
Gasoline, 1 gallon	.309	.885
9 item average	$0.19	$0.83

Conclusion: In 1957, the average "small item" could be purchased with a single coin. In 1987, three or more quarters would be needed for most purchases.

Sources: U.S. Bureau of Labor Statistics
American Petroleum Institute

Prepared by The Coin Coalition
September, 1987

Appendix III

(suggested language)

A BILL

To provide for the minting and circulation of one dollar coins, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SEC. 1. Short Title.

This Act may be cited as the "United States Coinage Reform Act of 1990".

SEC. 2 ONE DOLLAR COINS.

(a) COLOR AND CONTENT.-- Section 5112(b) of title 31, United States Code, is amended by inserting after the fourth sentence, the following: "The dollar coins authorized under subsection (a)(1) shall be gold in color shall be 26.5 millimeters in diameter, shall have an unreeded edge and shall have a copper content of not less than 80 per centum from natural deposits located in the United States or in a territory or possession of the United States, and be minted and fabricated in the United States. The coin should have similar metallic, anticounterfieting properties as existing United States coinage.

(b) EFFECTIVE DATE.-- Not later than 18 months after the date of enactment of this Act, the Secretary of the Treasury shall place into circulation one dollar coins authorized by section 5112(a)(1) of title 31, United States Code, in accordance with the amendments made by subsections (a) and (b).

SEC.3. CEASING ISSUANCE OF ONE DOLLAR NOTES.

(a) Twelve months after the date that the first coins referred to in section 2(c) are placed in circulation, the Federal Reserve Bank shall be prohibited from ordering new $1 Federal Reserve Notes and placing the same into circulation. Any $1 notes that come into the possession or control of any Federal Reserve Bank thereafter shall be retired.

(b) Thereafter, the Secretary shall produce only such Federal Reserve notes of the one dollar denomination as are required from time to time to meet the needs of collectors of this series which shall be produced in sheets and thereafter sold by the Secretary, in whole, or in part, as a price exceeding their face value that, at a minimum, reimburses the Secretary for the cost of production.

SEC.4 OFFSETTING REVERSE SEIGNIORAGE.

Seigniorage from production of dollar coins referred to in section 2(a) shall be used to offset the reverse seigniorage resulting from the destruction of Susan B. Anthony dollar coins in Government storage. Additional seigniorage from production of dollar coins referred to in section 2(a) shall be used to retire the national debt.

SEC.5 PRODUCTION OF $2 FEDERAL RESERVE NOTES.

The Bureau of Engraving and Printing shall produce sufficient $2 Federal Reserve Notes to meet anticipated demand.

Appendix IV

Material Savings from Coinage Reform

Paper decrease:

3.16 billion $1 bills (75% cotton, 25% flax) were ordered for fiscal year 1990. The Bureau of Engraving and Printing expects a 14% increase for FY 1991 because of "higher than anticipated withdrawal rates for worn currency." Currency demand typically grows by about 5% per year. Thus, annual demand for $1 bills could be expected to be about 4.3 billion by 1995 -- the first year that a $1 coin could be expected to be in full circulation. Treasury estimates that the current supply of 4.6 billion $1 bills would be replaced by between 5 and 10 billion coins, because coins are inventoried in vending machines, toll booths, etc. Assume that 7 billion coins are needed.

4.3 billion $1 bills, reduced by increased production of about .6 billion $2 bills. Net 3.7 billion reduction in note printing. 490 bills to the pound.

Annual savings in cotton production, 2,830 tons; flax, 944 tons.
Not considered is the reduction in ink production and VOC emissions from the Bureau of Printing & Engraving printing plants in Washington, D.C. (and in Fort Worth, Texas beginning next year).

Zinc decrease:

Pennies are 97.5% zinc, 2.5% copper.

This year the U.S. Government will mint 12.8 billion pennies, each of which weighs 2.50 grams. 453.6 grams = 1 pound.
There would be no offsetting increase in nickels, dimes and quarters.

Thus, an annual savings of 34,400 tons of zinc and 880 tons of copper, assuming no waste.

Copper increase:

The new dollar coin would likely be copper because of domestic supply, copper's low electronic residence for anti-counterfeiting measure, and malleability.

Initial inventory of 7 billion $1 coins, assuming 85% copper at 8.1 grams/coin would require 53,125 tons of copper; 9,375 tons of other alloys -- probably nickel.

Dollar coins are expected to last 30 years. Paper bills last, according to General Accounting Office, 16.8 months.

Dollar coin production would replace some quarter production, thus causing a minor reduction in the use of copper for quarters, which are 92% copper, 8% nickel. (perhaps 1000 tons of copper a year.)

Appendix V

Editorial Support

The following newspapers and columnists support the coinage reform proposals of the Coin Coalition and in most cases expressly endorse the phasing out of $1 bills.

Newspaper	Dates
Boston Globe	1/10/89
Chicago Tribune	2/20/88
Des Moines Register	7/13/88, 7/1/89 and 9/28/89
Fort Wayne Journal-Gazette	9/22/87 and 8/4/89
Fresno Bee	7/7/89
Hickory (NC) Daily Record	10/1/87
Kingsport (TN) Times-News	4/11/90
Lewiston (ME) Sun-Journal	10/17/89
Los Angeles Daily News	4/16/88
Lynn (MA) Daily Evening Item	4/30/88
Minneapolis Star Tribune	9/29/89
New York Times	3/9/89, 9/24/89 and 6/3/90
Pensacola News Journal	5/18/90
Roanoke Times & World	12/14/87
Sacramento Bee	7/9/89
St. Louis Post-Dispatch	7/20/89
Salt Lake City, Deseret News	10/5/87 and 11/22/88
San Francisco Chronicle	2/25/89 and 5/26/90
Scripps Howard Newspapers	4/11/88
Temple (TX) Daily Telegram	10/9/89
Wakefield (MA) Item	10/11/89

Columnists

William F. Buckley, Jr.	11/28/89
James J. Kilpatrick	1/23/88
Thomas Gephardt, Cincinnati Enquirer	3/11/90
Bob Moos, Dallas Morning News	10/20/89
Barry Rascovar, Baltimore Sun	6/25/89

Complete copies of articles available from the Coin Coalition.

The New York Times

Founded in 1851

ADOLPH S. OCHS, *Publisher 1896-1935*
ARTHUR HAYS SULZBERGER, *Publisher 1935-1961*
ORVIL E. DRYFOOS, *Publisher 1961-1963*

ARTHUR OCHS SULZBERGER, *Publisher*
ARTHUR OCHS SULZBERGER JR., *Deputy Publisher*

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WILLIAM L. POLLAK, *V.P., Circulation*

Changing Change

A new Gallup Poll confirms that people want the Mint to go on coining pennies, even though they're mainly a nuisance, and don't want a dollar coin, despite its genuine convenience. To a skittish politician, that says don't meddle. But the constructive message is that changing change takes leadership.

The leaders on this issue are Representatives Jim Kolbe and Morris Udall of Arizona. They have 128 co-sponsors on a bipartisan bill to create a distinctly new dollar coin. It would save a bundle; the General Accounting Office estimates that replacing dollar bills with coins would net $318 million a year.

Eleven sides make a useful coin.

The G.A.O.'s analysis makes a telling point: Despite public resistance, eight large countries have lately switched to high-denomination coins. Their old coinage was out of date, and so is America's. Pennies lie on sidewalks, untouched. A dollar buys little more than a quarter did in 1970. Pay phones and vending machines eat coins by the handful.

The Susan B. Anthony dollar flopped — too like a quarter, poor public preparation, and the dollar bill wasn't discontinued. But Canada's "loonie" works. An 11-sided, gold-colored coin bearing the likeness of a loon, it feels and looks different, and Canada's paper dollar is gone. With planning and resolve, it can be done.

There are, of course, special interests. Zinc interests paid for the Gallup Poll; "copper" pennies are mostly zinc. Mr. Kolbe and Mr. Udall come from a copper state; they dropped their original plan to use copper, but critics still pick at it. Representative Silvio Conte of Massachusetts injects overblown scorn: "A giant penny! What a pathetic statement of American decline!" Crane & Company, which makes U.S. currency paper, is in his district.

Braving the odds, a House banking subcommittee recently held a hearing on the Kolbe-Udall bill, and detected enough interest to plan more. A good airing will show that it's time to change change.

The Columbus Dispatch

An Independent Newspaper Serving Ohio Since July 1, 1871.

JOHN F. WOLFE, Publisher, President and CEO
ROBERT B. SMITH, Editor

EDITORIALS

Tuesday, May 29, 1990

Sense on dollars, cents

Results of a Gallup Poll released Wednesday reflect the public's sentimental attitude toward the nation's lowliest coin — the penny. But sound reasoning — not popularity polls — should guide the federal officials who have to make decisions about U.S. currency and coins.

Phasing out the use of pennies and replacing $1 bills with $1 coins would produce substantial long-term savings — not only for a debt-ridden government looking for ways to cut costs but also for vending-machine companies, public-transit systems and many other enterprises dealing with hard-cash transactions. In addition, people soon would find handling money much simpler without bothersome pennies and wallet-clogging bucks.

It is unlikely that Gallup workers presented any of these facts to the 750 adults surveyed last month, because a group lobbying for the preservation of pennies paid for the poll. Hence, people were asked if they agreed with such slanted statements as the penny "is a longstanding tradition in this country." Ninety-two percent agreed.

Billions of pennies are pitched — onto the ground or into the trash — each year. At best, pennies are fillers for piggy banks, gum machines or coin collections. No wonder three-fourths of the mint's production comprises pennies. What a waste of materials and effort on such a low-value coin.

Instead, the mint should be making durable $1 coins and phasing out penny production. The Bureau of Engraving should stop making $1 bills but might need to produce more $2 bills.

Switching from $1 paper to $1 coin would save the government an estimated $120 million per year. That's mostly because the average bill lasts just 17 months, while a coin circulates for about 20 years.

The Coin Coalition is urging that a new $1 coin be gold-colored and have a smooth edge. That would correct the mistakes made in the design of the Susan B. Anthony dollar, which never gained popularity because it looked and felt too much like a quarter. In addition, the coalition has proposed the new coin bear the likeness of Christopher Columbus, to commemorate the upcoming 1992 festivities.

Perhaps ironically, the Anthony coin did help inspire 10 other industrial countries — including Japan, Britain, Norway, Australia, France and Canada — to replace their lowest-denomination paper with high-denomination coins. Their successes should encourage the U.S. government to take the only step necessary to ensure acceptance of the new coin — that is to stop making the old bill.

That's all that is needed to spur demand for the coin as well as the $2 bill — a form of available currency that the American public has shunned though that denomination is popular in Canada and elsewhere.

As for phasing out use of the penny, a bill in Congress could expedite that. The legislation calls for rounding the total to the nearest nickel in cold-cash transactions after all purchases and sales tax are added up. Sellers would round down if the sum ends in 1, 2, 6 or 7 cents; up if it ends in 3, 4, 8 or 9 cents. Credit card and check payments would be unaffected.

Both buyer and seller would have an equal chance of gaining or losing just 2 cents in a coin-and-currency deal.

There's no need to put any kind of ban on using bucks or pennies, however. They either would wear out or go into collections as people find less and less use for them. All official U.S. money ever made remains legal tender, but some of it becomes obsolete as a means of exchange.

The dollar bill and penny are headed in that direction.

The Dallas Morning News
Wednesday, June 20, 1990

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EDITORIALS

DOLLAR COIN

Aren't you tired of all those quarters?

The Senate Banking Committee is holding a hearing today on a practical piece of legislation that would reintroduce a dollar coin. No, this wouldn't be a repeat of the Susan B. Anthony debacle of 11 years ago. Unlike the "Suzie," this new dollar coin couldn't be mistaken for a quarter. It would be a different color — most likely gold.

A nation should have a system of coins and currency that makes transactions as efficient as possible. That's no longer true of our money. Nowadays, it requires a fistful of quarters to do almost anything — pay for parking, make a long-distance call, do the laundry, use a vending machine. And all too often, there's no bill changer in sight.

A dollar coin would be a long-overdue acknowledgment of inflation. Today's dollar is the quarter of the '50s. A paper dollar makes as much sense now as a paper quarter would have then. It's time we introduced a well-designed dollar coin and phased out the paper dollar. (For those who still preferred paper, there would be the two-dollar bill.)

The United States enjoys the dubious distinction of having the most limited coinage of the world's major nations. Over the last decade, one country after another has introduced high-denomination coins and removed or phased out the bill of the same value: 1982, Japan; 1983, Great Britain and Norway; 1984, Australia; 1986, France; 1987, Canada.

What are we waiting for? Not only would dollar coins be more convenient, they would save taxpayers money — an estimated $318 million annually. Dollar bills must be reprinted every 17 months; a dollar coin, while slightly more costly to mint, would last 30 years. And because coins are easier to count than bills, many businesses would stand to save quite a bit, too.

Let's put the ghost of Susan B. Anthony behind us, once and for all. Our system of currency is in desperate need of change — specifically, a new dollar coin.

SATURDAY, MAY 26, 1990

San Francisco Chronicle

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EDITORIALS

Time Is Ripe For Dollar Coin

NOW THAT MORE than a decade has passed since the dismal failure of the Susan B. Anthony dollar coin, a thrift-conscious American public might be ready to try again to replace the old paper dollar bill with a new dollar coin.

In a report this week to a congressional panel, the General Accounting Office said the government might save about $318 million a year by such a change. A paper bill costs 2.6 cents to produce and lasts only about 1.4 years in circulation. A dollar coin should cost about 6 cents to make but can be expected to last at least 30 years.

Golden coin with likeness of Christopher Columbus

A new golden dollar coin could feature a likeness of Christopher Columbus, commemorating the 500th anniversary of the discovery of America and coinciding with the corresponding worldwide celebrations in two years.

THE LATE, LAMENTED Susan B. Anthony coin went down to defeat because consumers complained it was too easily confused with a quarter. A new dollar coin would be fashioned with its own distinctive color and shape.

While the Treasury Department is about it, pennies could be eliminated as a nuisance and merchants could round off their customers' bills to the nearest 5 cents. This would please retailers and infuriate the zinc industry.

Winning public acceptance of a new coin system will be difficult as polls have shown that Americans are passionately fond of paper dollar bills in their wallets and pennies in their penny banks. Any change will require active campaigning by members of Congress and the government's executive branch.

The memory of Susan B. Anthony lives on.

Mr. BRADLEY. Certainly, Mr. Chairman.

Senator DIXON. Mr. Dan Bradley, president of the Washington Plate Printers Union.

STATEMENT OF DAN BRADLEY, PRESIDENT, WASHINGTON PLATE PRINTERS UNION, WASHINGTON, DC

Mr. BRADLEY. Thank you, Mr. Chairman.

Accompanying me today, Mr. Chairman, is a Mr. Joseph Kilgallen, who is president of Rutenberg, Kilgallen & Associates. He is an economist by trade and, from time to time, he helps us out with things of this nature, such as this legislation that we're dealing with today.

If I may, I'd like to read my statement.

Mr. Chairman, and members of the Committee on Banking, Housing, and Urban Affairs, I appreciate and welcome this opportunity to appear before you to discuss S. 814, a bill to provide for the minting and circulation of $1 coins.

The citizens of this country, the world's leading democracy, have always been proud of the guiding principle, government of the people, by the people, for the people. It has been our tradition that government decisions and actions reflect the will of the American people. This principle has been reflected in the production of money. The Government historically has made no effort to directly regulate the size of the Nation's currency stock or the denominational mix within it. The level and composition has always been determined by public demand, the public's preference for a specific denomination of notes and coins.

S. 814 ostensibly offers the public an option—the choice to use either a $1 coin or a $1 note.

At least as currently drafted, it does not require a cessation of the production of $1 bills. However, recent history and expert opinion strongly indicate that, given a choice, the American public will use a $1 bill and reject the $1 coin. Changing the color and the shape of the proposed $1 coin will not overcome the basic cause of the failure of the Susan B. Anthony dollar.

THE WILL OF THE AMERICAN PEOPLE SHOULD BE FOLLOWED

The American public simply prefers a $1 bill to a $1 coin, regardless of its shape, size or color.

In this century, there have been four attempts to introduce $1 coins. In each instance, studies indicated the efforts would fail and, indeed, they did. The situation is no different today. Experts and studies still reach the same conclusion.

The American public desires to retain the $1 bill and is resistant to replacing it with a $1 coin.

Very recently, at a congressional request, the General Accounting Office conducted a study to determine the feasibility of a dollar coin. That study concluded general public focus group participants, on the whole, did not accept the idea of a new dollar coin. They felt that savings to the Government would not be substantial enough to offset the inconvenience, confusion, and total cost to the public for a new dollar coin.

Similarly, an April 1990 Gallup survey concluded that only 15 percent of the population would favor creating a new dollar coin and abolishing the $1 note. About 85 percent were opposed to the elimination of the dollar bill.

We stand with the overwhelming majority of the American public who support the retention of the dollar note and oppose the introduction of a dollar coin.

The opinion of the American people has been sought and obtained. They have given a convincing endorsement to the dollar bill. We believe Congress should honor the will of the people.

We are aware that the GAO recommends that Congress proceed with the dollar coin legislation only if it and the administration can reach and sustain a joint resolve to eliminate the dollar note and stand up to an expected negative public reaction.

Given that advice, we wonder why Congress should once again be out front on an issue that is unpopular with the American public when the administration has not taken a position on it.

We also find it ironic that legislation to reduce BEP's output of currency is being proposed at the same time that BEP, after investing millions of dollars, is substantially expanding its capacity to print the notes with the opening of a new facility in Fort Worth, TX.

Finally, we want to point out that there is a viable alternative to the dollar coin that would provide a more comprehensive answer to the concerns expressed by those who represent the blind. The technology is available to place raised dots or geometric symbols on notes with intaglio print. This would allow the blind to distinguish among all denominations of currency.

Indeed, eight countries already use this technique on their notes, to allow the blind to more readily distinguish the value of all currency. It should be done in this country as well.

Mr. Chairman, members of the committee, we appreciate the opportunity you have given us to express our views concerning S. 814. While we obviously have our own view, our concerns go beyond our parochial interests. We simply believe that the will of the American people, having been sought, analyzed, and summarized, should now be followed.

Thank you very much.

Senator DIXON. Thank you, Mr. Bradley.

[The complete prepared statement of Daniel Bradley follows:]

Statement of Daniel J. Bradley
President, Washington Plate Printers Union, Local #2
before the
Senate Committee on Banking, Housing and Urban Affairs
concerning
S. 814, the United States Coinage Reform Act of 1989

June 20, 1990

Mr. Chairman and members of the Committee on Banking, Housing and Urban Affairs, I appreciate and welcome this opportunity to appear before you to discuss S. 814, a bill to provide for the minting and circulation of one dollar coins.

The citizens of this country, the world's leading democracy, have always been proud of the guiding principle of "government of the people, by the people, for the people." It has been our tradition that government decisions and actions reflect the will of the American people.

This principle has been reflected in the production of money. The government, historically, has made no effort to directly regulate the size of the nation's currency stock or the denominational mix within it. The level and composition has always been determined by public demand -- the public's preference -- for specific denominations of notes and coins.

The one dollar bill is extremely popular with the American people. In the past twelve years, efforts to promote alternatives have convincingly demonstrated that the one dollar bill is the "people's choice." The lack of acceptance of the Susan B. Anthony

dollar coin and the limited circulation attained by the two dollar bill attest to the overwhelming popularity of the one dollar note.

S. 814 ostensibly offers the public an option -- the choice to use either a one dollar coin or a one dollar note. At least, as currently drafted, it does not require a cessation in the production of one dollar bills. However, recent history and expert opinion strongly indicate that, given a choice, the American public will use the one dollar bill and reject the one dollar coin. Changing the color and the shape of the proposed one dollar coin will not overcome the basic cause of the failure of the Susan B. Anthony dollar. The American public simply prefers a one dollar bill to a one dollar coin regardless of its shape, size or color.

In this century there have been four attempts to introduce one dollar coins. None have met with success. The most determined effort, the Susan B. Anthony dollar, achieved a total circulation of about 400 million coins in 1980, but only 39 million in 1981. None have been produced since. Those that were produced -- except for those retained for speculative purposes -- are held in storage. The dollar coin never gained public acceptance.

Moreover, this result was predictable -- as it is now. In 1979, before the introduction of the Susan B. Anthony dollar, the Federal Reserve System commissioned a study by the University of Michigan. That study revealed that few consumers and retailers wanted to add a dollar coin to the currency system. It concluded that consumers and retailers were generally satisfied with the existing currency system. None of the study participants believed

a dollar coin could successfully circulate alongside the dollar note.

Years later, that is still the conclusion of the experts in the field. On July 22, 1987, U.S. Mint Director Donna Pope said in Coin World, "I think that everyone that has talked on the subject has agreed that the only way a dollar coin in the United States would get to be in circulation would be if the dollar note were eliminated."

In a June 30, 1988, report prepared in response to a letter from Senator Proxmire, the Treasury Department concluded that "the withdrawal of the one dollar note is essential" to achieve the required level of circulation for the one dollar coin to eventually obtain meaningful savings.

At another point, the report states, "...public law obliges the Department of Treasury to provide whatever quantity of Federal Reserve notes the Federal Reserve System requires. Therefore, the Department cannot constrain note production to force the public's acceptance of a coin which they do not want. These factors, taken together with a past disinclination of the general public to embrace a one dollar coin, suggest that the success of a gold-colored dollar coin might hinge upon a legislated withdrawal of the one dollar note."

More recently, at Congressional request, the General Accounting Office conducted a study to determine the feasibility of a dollar coin. As part of that study it commissioned Westat, Inc., a national survey research firm, to conduct a study of

general public attitudes toward a dollar coin. That study concluded that neither the general public nor the private sector is particularly interested in having a new dollar coin.

The GAO report concludes "General public focus group participants on the whole did not accept the idea of a new dollar coin. They felt that savings to the government would not be substantial enough to offset the inconvenience, confusion, and total costs to the public for a new dollar coin." They were concerned about "more bulk to transport; slower cash transactions; possible loss if the coin resembled a 25-cent coin; higher prices at vending machines where prices would be raised to the dollar; and additional costs passed on to consumers from the private sector's costs of retooling vending and laundromat machines."

Moreover, the report goes on to conclude "nearly all the general public and private sector respondents indicated that the dollar note would have to be eliminated if the government expects to have a successful dollar coin. They uniformly believed that if a dollar note and dollar coin were both available, the public would choose to use the note."

An April 1990 Gallup Survey concluded that only fifteen percent of the population would favor creating a new dollar coin and abolishing the one-dollar note. About eighty-five percent were opposed to the elimination of the dollar bill.

Clearly, the successful introduction of a dollar coin can only be achieved if either:

(1) a dollar coin would receive widespread general public acceptance in lieu of the dollar note; or

(2) the dollar bill is legislated out of existence in spite of well-documented public support for its continued circulation.

The first condition has not been met. All the various studies and surveys addressing public preference have unanimously and overwhelmingly concluded that the American people want to keep the dollar note and would continue to use it rather than a dollar coin, should such a coin be introduced.

Therefore, while we applaud S. 814's intent to give American consumers the option of using the dollar coin or dollar bill, we believe the Susan B. Anthony experience would be repeated. We would be seeking more storage room for yet another dollar coin and precious taxpayers' monies would be wasted once again.

This does not mean that we are in favor of the second condition -- eliminating the dollar note. On the contrary, we stand with the overwhelming majority of the American public who support the retention of the dollar note and oppose the introduction of a dollar coin. The opinion of the American people has been sought and obtained. They have given a convincing endorsement to the dollar bill. Congress should honor the will of the people.

We are aware that the GAO recommends that Congress proceed with the proposed dollar coin legislation only if it and the Administration can reach and sustain a joint resolve to eliminate the dollar note and stand up to an expected negative public

reaction. We haven't noticed the Administration taking a position on this legislation. Indeed, according to the GAO study "Mint and Treasury Department officials said the current U.S. mix of currency and coins, which is driven by consumer preferences, works well."

Why should Congress once again be out front on an issue that is unpopular with the American public when the Administration has not taken a position on it?

It is ironic that legislation to reduce BEP's output of currency is being proposed at the same time that BEP, after investing millions of dollars, is substantially expanding its capacity to print notes with the opening of a new facility in Fort Worth, Texas. As the Treasury Department notes, "The elimination or decrease in one dollar note production would likely have a greater impact on Fort Worth's projected volume than on Washington's. The Fort Worth facility is expected to produce a higher ratio of one dollar notes to total production than the Washington facility, due in part to stronger demand in the East for notes of larger denominations." Each of the facilities' production by denomination will reflect the demand in their respective geographic areas in order to reduce transportation costs.

While we believe the general public should ultimately determine whether the one dollar bill should be sacrificed for a

one dollar coin, we don't wish to appear to be insensitive to the unique concerns of the blind. We recognize that a specially designed dollar coin will enable the blind to make a distinction between that and coins of a lesser value. However, it will do nothing to assist them in distinguishing between five, ten, twenty, etc., dollar bills.

There is a viable alternative to the dollar coin that would provide a more comprehensive answer to the concerns expressed by some who represent the blind. The technology is available to place raised dots or geometric symbols on notes with intaglio print. This would allow the blind to distinguish among all denominations of currency. Indeed, eight countries already use this technique on their notes to allow the blind to more readily distinguish the value of currency. It should be done in this country as well.

Finally, while we sympathize with the intention of honoring Christopher Columbus, we believe that has to be put in proper perspective. Legislation has already been introduced in the House of Representatives (H.R. 2754) "to mint coins in commemoration of the quincentenary of the discovery of America by Christopher Columbus and to establish the Christopher Columbus Fellowship Foundation." These commemorative five dollar, one dollar and half dollar coins, as well as the Foundation, will certainly pay homage to both the 500th anniversary of the discovery of America and to Christopher Columbus himself.

Christopher Columbus deserves to be honored, but not at the expense of removing the most popular piece of currency from

circulation and, with it, the image of the father of the United States of America, George Washington.

In summary:

1. We prefer S. 814 to H.R. 1068 because it does not require the elimination of the one dollar bill. We believe the American public should be able to determine whether and to what extent the dollar coin should be substituted for the one dollar bill.

2. We are confident, given a choice, the American public will overwhelmingly elect to continue to use the one dollar note and to reject the one dollar coin. This belief, founded on the experience with the Susan B. Anthony coin and reinforced by the findings of various surveys and studies and by the unanimous opinion of experts in the field, leads us to conclude that the proponents of the dollar coin will attempt to amend S. 814 to include a provision requiring a cessation in the production of one dollar notes.

3. Given the option of two unpalatable alternatives -- allowing a new one dollar coin to suffer the same fate as the Susan B. Anthony coin by giving the American public a choice or depriving the general public of a choice by legislating the one dollar bill out of existence -- we recommend that S. 814 not be reported out of this Committee.

Mr. Chairman, members of the Committee, we appreciate the opportunity you have given us to express our views concerning S. 814. While we obviously have our own view, our concerns go beyond our parochial interests. We simply believe that the will

of the American people having been sought, fairly analyzed and summarized, should now be followed.

We will follow your deliberations with great interest. Thank you!

Senator DIXON. Dr. Raymond Lombra, Americans for Common Cents, C-e-n-t-s.

Mr. Lombra.

STATEMENT OF RAYMOND LOMBRA, PROFESSOR OF ECONOMICS, PENNSYLVANIA STATE UNIVERSITY, STATE COLLEGE, PA, REPRESENTING AMERICANS FOR COMMON CENTS

Mr. LOMBRA. Thank you, Mr. Chairman. I should also note that I'm a professor of economics at Penn State University.

Senator DIXON. Very good.

Mr. LOMBRA. And if I had thought about a prop, I probably would have brought with me a stand-up Joe Paterno, to lean over my shoulder here and help call the plays today.

Senator DIXON. Welcome to the Big Ten.

Dr. LOMBRA. Thank you very much.

I know the afternoon is late and the Senator is busy. Let me summarize my statement in six points.

First, it's clear, I think from the Gallup survey that has been alluded to in several pieces of testimony today that only a very small proportion of the American public favor the introduction of a dollar coin and the elimination of the dollar bill.

The second point is to touch on something that I believe is in section 3 of the bill that relates to the elimination of the penny. I'd like to say that I think it's implicit in much of what has been said today that there's no logical linkage between the introduction of a dollar coin and the elimination of the penny.

Senator DIXON. And may I say that I'm going to support an amendment to take out that section. So you've already persuaded me.

Mr. LOMBRA. Canada has proved definitively, presumably, that you can have a dollar coin and still have a penny circulating.

Senator DIXON. Yes. I'm in favor of keeping the penny, Mr. Lombra.

Mr. LOMBRA. Not everyone may share your view, so let me go on for just a minute, if I may——

Senator DIXON. Sure.

Mr. LOMBRA [continuing]. To summarize what I think are some of the problems associated with eliminating the penny and instituting a price-rounding scheme such as appears in some House legislation.

First, my estimates suggest that, given the distribution of prices in the United States, the rounding that would be required if we eliminated the penny would result in a net rounding up to the American consumer that I call a rounding tax. And making the most conservative estimate that I can imagine making, which is 1 penny per adult per day, this adds up to $600 million per year to the U.S. consumer.

I know in Washington sometimes $600 million is not a lot of money, but I think—sometimes, I said—I think that's it's a substantial sum of money. Second, it appears that that rounding tax would fall disproportionately on the poor because Federal Reserve surveys show that there are only three groups in society that make more than 50 percent of their transactions in cash. This rounding

would only apply to cash transactions. Those are people with less than 12 years of education, nonwhites and Hispanics, and those with less than $10,000 of income.

So I think it's very clear that this would be a regressive tax on the American public.

Third, it has sometimes been said that this rounding would be inflationary. Now, my estimates suggest that the effect on the Consumer Price Index that we see reported monthly would be fairly small.

However, it's interesting to note that even a small effect on the Consumer Price Index cumulates to a quite substantial sum of money. And I'd compare the number I'm going to cite here with—as a benchmark—the $318 million on a present-value basis that we've heard we might save through introduction of the dollar coin.

My estimates suggest that government outlays that are indexed, formally or informally, to the CPI would rise by $1½ billion after 5 years; even though the effect on the CPI is small, given the size of government outlays and the fact that Social Security benefits and government pensions, for example, are indexed to the CPI, it would cumulate to $1½ billion, plus the $600 million that I have for what I think is a conservative estimate of the rounding tax, to $2 billion.

The point is that the pennies add up to what I think everyone would agree is a substantial sum of money.

Last, I'd note that the Gallup results, in general, suggest the public understands all this, that they're not so irrational, at least in this regard. More than 60 percent were against eliminating the penny. Three-quarters felt that they would experience rounding up. And perhaps reflecting the expected regressivity that I noted, those with incomes under $30,000 were much more likely to be against eliminating the penny than those with incomes above that level.

So let me conclude by saying that I could not identify any net economic benefits associated with eliminating the penny. Moreover, and I think this is a more general point relating to what we've been talking about today, it seems to me the Government's experience with the metric system, the now much-maligned Anthony dollar, the nine-digit zip code, and the bicentennial $2 bill, when viewed against the background of the Gallup survey, suggests that the public will not accept a change in anything that's embroidered into the fabric of America, unless they're convinced that there's a need for change.

And there seems to be little evidence that they're so convinced.

So we concur with the General Accounting Office recommendation that the cent be retained, and I'd be pleased to submit my study, the Gallup survey, and full statement for the record.

[The complete prepared statement of Raymond Lombra follows:]

TESTIMONY

Statement of

Raymond E. Lombra

Professor of Economics

Pennsylvania State University

Americans for Common Cents

Before the

Senate Banking Committee

June 20, 1990

1:30 P.M.

Mr. Chairman and Members of the Committee:

I am pleased to be here today on behalf of the Americans for Common Cents to discuss some aspects of proposed legislation, such as S. 814, which would significantly change the U.S. coinage system. In particular, I would like to review those aspects of an April 1990 Gallup survey that bear on the questions before you today and summarize a study I have completed on the economic effects of eliminating the penny and instituting a price rounding scheme for cash transactions.

The conclusions drawn from this review are easily summarized:

* There is little public demand for or interest in a new dollar coin.

* Eliminating the penny would impose a significant and regressive rounding "tax" on the American public. The public appears to recognize this possibility and strongly opposes elimination of the penny.

* The effect of the rounding "tax" on prices would in turn increase government outlays indexed (formally or informally) to prices by at least $1.5 billion over a five year period.

Public Attitudes Toward the Creation of a New One Dollar Coin

The Americans for Common Cents does not have a formal position on the possible introduction of a dollar coin. However, in response to a request by the staff of the Senate Banking Committee, questions about the dollar coin were included in the April 1990 Gallup survey designed to measure public attitudes towards various reforms of the coinage system. The survey found that only about one-third of the adult public would favor legislation that would call for the creation of a new one dollar coin and less than half of those respondents favoring the new coin would approve of abolishing the dollar bill. Taken together, and expressed as a portion of the entire group surveyed, these figures mean that only 15% would favor both the creation of a new dollar coin and abolishing the one dollar bill.

No Logical Linkage Between Penny and Dollar Coin

In the various pieces of legislation that have been produced to date, it is assumed, at least implicitly, that there is some type of linkage between the possible introduction of a dollar coin and the elimination of the penny. Simply put, we see no logical connection between these two initiatives and believe the costs and benefits of each proposal should be evaluated separately. This contention is strongly supported by the recent Canadian experience wherein a dollar coin was introduced in 1987 and, at the same time, a conscious decision was made to keep the Canadian penny.

The linkage we would like to emphasize is that which appears to exist between various aspects of the cash transaction process and the need for one cent coins. Along these lines, let me summarize the results of a study I have completed of the economic effects associated with eliminating the penny and introducing a price rounding scheme for cash transactions.

The Major Economic Effects Associated with Eliminating the Penny

* A careful statistical analysis based on the information available on the distribution of prices in the United States strongly suggests that, on balance, prices will be rounded up.

* This rounding "tax" will have a significant adverse effect on consumers. A conservative estimate places the tax in the $600 million dollar per year range.

* Federal Reserve surveys show that those with incomes under $10,000, non-whites and Hispanics, and those adults with less than 12 years of education pay for more than half of their total purchases in cash. Since only cash transactions will be subject to rounding, it follows that the rounding "tax" will be regressive, affecting the poor and other disadvantaged groups disproportionately.

* Although the direct inflationary impact of eliminating the penny and rounding prices is likely to be small, the effect in dollar terms on Federal government outlays linked to the Consumer Price Index (such as, Social Security benefits, government pensions, etc.) could cumulate to a considerable sum. Utilizing the conservative price rounding estimate mentioned above and Congressional Budget Office projections, it appears that elimination of the penny could raise Federal government outlays by about $1.5 billion by 1995.

* The major alleged benefit associated with eliminating the penny--namely recovering the productivity lost when retail clerks make change--is an illusion. Simply put, cash register clerks would not suddenly be free to stock shelves or clean stores if the penny were no longer in circulation. Moreover, rounding creates additional complexity at the cash register--that is, the cash or charge and round or not round character of each transaction--that will, if anything, increase the time associated with settling transactions, thereby aggravating any productivity loss rather than reducing it.

* The Government's profit from penny production--that is seigniorage--will continue for the foreseeable future. More specifically, the cost of producing pennies has ranged from 0.6 - 0.7 of a cent in recent years and these costs have increased by far less than the overall inflation rate. These facts, along with the desire of the President and the Federal Reserve to lower the inflation rate over the decade of the 1990s, suggests it is unlikely that the production costs of the penny will exceed one cent anytime soon.

Gallup Results Show Public Concern

* More than 60% of those adults surveyed said they would oppose legislation that would call for discontinuation of the penny and price rounding.

* About three-quarters of those surveyed were concerned that merchants would increase their prices.

* Perhaps reflecting the expected regressive effect of the rounding "tax," opposition to the legislation was proportionately larger among those adults surveyed with annual incomes under $30,000.

Concluding Thoughts

I cannot identify any net economic benefits associated with the proposed legislation regarding the penny. Moreover, the Government's experience with the metric system, the nine digit zip code, the bicentennial $2 bill and the Anthony dollar coin, along with the recent Gallup survey results, suggests to me that the public must be convinced that there is a pressing need to change anything that has become embroidered into the fabric of society. Simply put, the case for eliminating the penny is very weak. We concur with the General Accounting Office recommendation that the cent be retained. We are pleased to submit the economic study and the poll for the record.

An Economic Analysis

of

The Price Rounding Act of 1989

by

Raymond E. Lombra

Professor of Economics
Pennsylvania State University
May 16, 1990

I. Introduction

To facilitate the removal of the penny from circulation and the cessation of penny production by the United States Mint, The Price Rounding Act of 1989 has been introduced in the House (H.R. 3761). The essence of the bill (hereafter referred to as The Proposal) is that if the total, including tax, of a cash purchase ends in a 1, 2, 6, or 7, the resulting sum shall be rounded down to the nearest nickel, while if the total ends in a 3, 4, 8, or 9 the resulting sum shall be rounded up to the nearest nickel. For example, $1.32 would be rounded down to $1.30, while $1.33 would be rounded up to $1.35.

The purpose of this study is to examine the major economic consequences of The Proposal. There are two closely related considerations which have guided the analysis. First, the Department of the Treasury has laid out an eminently sensible set of criteria which should guide any reasoned examination of our coinage system: "It is the policy of the Treasury to provide currency and coin in the form and denominational mix which best balances the factors of commercial need, individual preference, and Government cost avoidance."(1) Second, applying these criteria requires considerable care in identifying and measuring, to

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1. Department of the Treasury, An Assessment of United States Currency and Coin Systems with Long Run Planning Recommendations, (1979), p. 1.

the extent possible, the major costs and benefits associated with The Proposal.

The major findings of our analysis can be summarized as follows:

*The major alleged benefit associated with eliminating the penny -- namely, recovering the productivity lost when making penny change in conjunction with retail cash transactions -- is an illusion. If anything, The Proposal will aggravate any productivity loss rather than reduce it.

*Careful statistical analysis strongly suggests that, on balance, prices will be rounded up.

*The rounding "tax" will have significant adverse effects on consumers and is likely to be regressive, affecting the poor and other disadvantaged groups disproportionately more than the rest of society.

*Although the inflationary impact of The Proposal will be small, the effect in dollar terms on the government and private sectors could well be nontrivial, perhaps totaling over $2 billion a year after 5 years.

*The government's considerable earnings on penny production (so-called seigniorage) will continue for the foreseeable future. Thus, there is little doubt that penny production is consistent with the Government's desire for cost avoidance.

Taken together, these findings suggest that there are no identifiable net economic benefits associated with The Proposal and it should, therefore, be withdrawn from consideration.

II. The Costs Associated with Consummating Transactions

A major rationale for a smooth functioning financial system and payments mechanism is that it facilitates the efficient exchange of money for goods and services. The degree of "efficiency" characterizing the transactions process refers to the costs associated with consummating financial transactions. One of the rationales, and thus alleged benefits, frequently mentioned in conjunction with The Proposal is that under current arrangements retail firms lose approximately $22 million in worker productivity in conjunction with handling pennies when making change.(2) In other words, The Proposal would improve the efficiency of the payments process by lowering the costs of making change.

Exhibit I below brings together the assumptions underlying the $22 million calculation.

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2. James Benfield, "The Penny Gambit," The Washington Post (July 12,1987), p. C3.

Exhibit I: ESTIMATED WASTE ASSOCIATED WITH HANDLING PENNIES

a. 10 billion annual cash transactions
b. Multiply by 2 seconds "wasted" handling pennies during each cash transaction (= 20 billion seconds)
c. Divide by 3600 seconds per hour
d. Equals 5.5 million hours wasted
e. Multiply by $4.00 per hour wage rate
f. Equals $22 million

Conceptually, the basic idea is that workers are paid according to their productivity. Any time "wasted" can, therefore, be linked to a dollar equivalent productivity loss by valuing the time at the prevailing wage rate for retail clerks. Intuitively, the time "wasted" could have been used to clean, restock shelves, serve other customers, and so forth.

So far so good. The problem arises with regard to the not so subtle assumption that The Proposal will eliminate the productivity loss. Simply put, this conjecture is an illusion. Put more forcefully, there are many reasons to believe that the net time associated with consummating transactions will, if anything, increase under The Proposal rather than decrease. Thus, the efficiency of the payments process could be impaired rather than improved.

Under the provisions of The Proposal, cash transactions would be rounded but check and credit card transactions would not be rounded. This means that every cash register operator, bank teller and change-maker will need to be trained accordingly and be prepared to explain the intricacies of rounding to customers. Such training and

information costs -- which should include a large educational campaign for the public at large -- would clearly dwarf the $22 million estimate above. Even more importantly, it seems clear that in the actual implementation of The Proposal at least two seconds, on average, would be lost as employees had to adjust to the cash or charge, round or not round character of each individual transaction. On top of this it should also be noted that some firms would need to make capital investments to modify their cash handling systems.

The main point is undeniable -- additional complexity at the cash register translates into more time associated with transactions. Moreover, as the recent Gallup survey confirms, it will be difficult to shake the consumer's suspicion that he or she is getting the short end of every transaction; approximately six in ten thought that eliminating the penny would cause confusion when purchasing items and about three-quarters of those surveyed were concerned that merchants might increase their prices.(3)

III. Price Rounding, Penny Elimination and Consumer Expenditures

In considering the more tangible effects of The Proposal on households, it is useful to separate the potential effects into two categories: (1) the potential effect on households in the aggregate; and (2) any potential distributional

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3. "A Gallup Survey of Public Attitudes Toward the Discontinuation of the One-Cent Coin," The Gallup Organization, April 1990, p. 2.

effects -- that is, effects which may fall disproportionately on one group in society rather than another.

Aggregate Effects

In an ideal, laboratory-type setup, one would proceed to evaluate the overall effects, if any, on the consumer by gathering data on the structure of prices. With the prices in hand, and with detailed data on consumer expenditures by item, by group (that is, the specific combination of items bought at each purchase), and by method of payment (check, cash, or credit card), we could then round accordingly and compute the net effect on consumer spending.

Needless to say, we are a long way from such an idealized world. First, we know little about the structure of prices. The notion that rounding will have no noticeable net effect on the typical consumer (and thus consumers in the aggregate) is predicated on the notion that the structure of prices is such that there is an equal 10% probability of purchase prices ending in any particular digit -- whether for single item purchases, wherein only the price of the single good plus tax matters, or for groups of items purchased together, wherein the total of the individual prices plus tax matters. In fact, what little evidence there is suggests the equal probability (or so-called uniform distribution) assumption is false.

For example, some older research on retail food prices demonstrated that prices ending in odd digits are much more common than those ending in even digits, and that prices

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ending in "9" are most often observed. Exhibit II shows the distribution of prices for a 70-city survey of processed meat prices and Exhibit III shows the distribution of prices for all products advertised by the leading food retailers in 1965 for the 23 largest metropolitan areas in the country.(4)

Exhibit II

Prices Ending in the Digit:	Per Cent of 30,878 Brand-Price Occurences
9	64
8	2
7	3
6	-
5	19
4	-
3	9
2	1
1	1
0	1

4. All information taken from: Dik Warren Twedt, "Does the '9 Fixation' in Retail Pricing Really Promote Sales?" Journal of Marketing (October 1965), pp. 54-55.

Exhibit III

PER CENT OF ADVERTISED PRICES ENDING IN EACH DIGIT*

Market	Leading chain	No. of prices	1	2	3	4	5	6	7	8	9	0
New York	A&P	172	1	2	10	1	17	0	6	1	60	2
Newark	Shop-Rite	275	1	1	5	3	22	1	7	1	55	4
Chicago	Jewel Tea	82	0	0	5	6	21	2	1	5	55	5
Los Angeles	Safeway	132	1	1	5	6	12	0	6	2	59	8
Philadelphia	Acme	149	3	3	11	1	17	0	7	5	52	1
Detroit	A&P	145	1	2	8	3	10	0	6	4	63	3
Boston	First National	78	0	0	5	4	19	0	8	6	50	8
San Francisco	Safeway	115	0	0	4	9	7	2	6	1	68	3
Pittsburgh	A&P	78	1	4	5	5	12	0	0	1	68	4
St. Louis	Kroger	97	2	3	10	2	7	2	3	4	58	9
Washington, D.C.	Safeway	93	9	5	8	2	17	1	2	0	55	1
Cleveland	Pick-N-Pay	110	5	2	13	9	8	2	7	5	43	8
Baltimore	A&P	188	2	2	10	4	17	1	6	2	52	4
Mpls.-St. Paul	Red Owl	54	9	0	5	2	15	2	6	4	50	6
Buffalo	Loblaw	89	6	1	0	3	8	0	8	1	70	3
Houston	Weingarten	112	6	0	7	4	21	0	12	1	49	0
Milwaukee	Kohl	82	2	0	6	6	17	2	7	5	46	9
Seattle	Safeway	78	0	0	0	3	22	0	3	5	57	10
Dallas	Buddies	120	1	1	6	4	18	2	13	4	45	6
Cincinnati	Kroger	85	1	0	5	0	12	1	8	5	64	4
Kansas City	Safeway	71	0	1	1	1	8	0	3	0	79	7
San Diego	Safeway	111	1	1	7	4	17	2	5	4	59	0
Atlanta	Colonial	81	0	0	6	2	15	0	7	7	59	4
	Total	2,597	2	1	7	4	15	1	6	3	57	4

* Retail grocery advertisements of June 2, 3, and 4, 1965, for each of the leading chains in the top 23 "A" Metropolitan Areas.

A somewhat more recent study of restaurant prices also rejects the equal probability assumption. In 1986, Professor Lee Kreul of Purdue University surveyed restaurant prices in 428 newspaper ads nationwide - he found that restaurant prices ended in a "9" approximately 20% of the time.(5)

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5. Marketing News, April 11, 1986, p. 14.

In passing, it should be noted that the incidence of prices ending with a "9" (or in an odd digit, more generally) is no accident. Leaving aside the obvious but largely unsupported notion regarding the psychological effect of say $1.99 rather than $2.00 on consumer demand, there is a more significant and tangible rationale for such pricing which is wholly consistent with profit maximation on the part of firms. As quoted by Twedt:

> Department stores first started the (odd) pricing method to eliminate shrinkage at the cash register caused by the pocket-bookkeeping among sales personnel. Even-priced merchandise often would be paid for in exact amount direct from shoppers' purses. The clerk would then serve another customer or two before ringing up a sale. When prices were changed to odd amounts, making change from pocket became obvious and correct change usually required a trip back to the register.(6)

I am inclined to think that anything which helps control employee theft and forces cash transactions through a cash register for accounting and tax purposes is of considerable quantitive importance for the economy as a whole as well as for individual firms! Eliminating production of the penny and price rounding quite obviously moves in the opposite direction.

The second major problem with our idealized world for calculating the aggregate effects of The Proposal is that we have no detailed data on consumer cash expenditures of the

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6. Twedt, op cit, p. 55 (from The Price is Right, St Louis: The Garvey Corporation, 1964, p. 6).

type required. As articulated in a recent study by the Treasury Department:

> one paradox in studying cash use patterns is that the most popular features of cash -- impersonality, easy obtainability, universal acceptance -- are also the principal obstacles to analyzing its movement. It is virtually impossible to track cash flows on a national level, and, therefore, attempts at understanding where the money is [and how it is used] must necessarily rely in substantial part on assumptions and inductive reasoning.(7)

Against this background, a series of recent surveys by the Federal Reserve can be used in conjunction with a set of assumptions to generate an estimate of The Proposal on households in the aggregate.(8) The Federal Reserve surveys found that, on average, all noninstitutionalized U.S. residents aged 18 years or more made nearly $500 of cash transactions per month in 1984, representing about 36% of total expenditures (1986 Federal Reserve Study, Table 1, p. 88). Interestingly, these figures changed little between the 1984 and 1986 surveys (1987 Federal Reserve Study, p. 180). This volume of average monthly cash transactions works out to about $17 per day per individual. If we make

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7. Department of the Treasury, An Assessment of United States Currency and Coin Systems With Long Range Planning Recommendations, (1979), p. 2.

8. R. Avery, et al, "The Use of Cash and Transaction Accounts by American Families," Federal Reserve Bulletin, (February 1986), pp. 87-108 [1986 Federal Reserve Study hereafter] and R. Avery, et al, "Changes in the Use of Transaction Accounts and Cash from 1984 to 1986," Federal Reserve Bulletin, (March 1987), pp. 179-196 [1987 Federal Reserve Study hereafter].

the most conservative assumption possible -- that is, we assume that each adult resident experiences a net of only one cent of rounding, on average, per day, or, say $3.50 per year -- then we can multiply this figure by the approximately 176 million adult residents in the U.S. at the time of the surveys to get an estimate of the aggregate effect on consumers. As shown in Exhibit IV,

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Exhibit IV: EFFECT OF PROPOSAL ON CONSUMER EXPENDITURES

a. Net Rounding per adult individual per day	= $ 0.01
b. Multiplied by 350 days per year	= $ 3.50
c. Multiplied by 176 million adult persons	= $ 616 million

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the resulting total is over $600 million -- a considerable sum by any measure!

The calculation is illustrative of a fundamental premise -- even a seemingly trivial effect per individual per day adds up to a nontrivial "tax" on consumers in the aggregate. Of course, as with all such illustrations, one can question the underlying assumptions. In particular, what evidence is there for assuming prices will, on balance, be rounded up? Leaving aside for the moment any strategic pricing decisions by firms in the face of the actual implementation of The Proposal (discussed below), it is possible to generate considerable evidence supporting the net rounding up assumption used above.

Rounding Up or Down: A Simulation Analysis

The objective of the simulations undertaken was to examine the net rounding which would occur given alternative assumptions about the distribution of prices and the number of items purchased in each cash transaction. To be more specific, the simulations can be divided into two basic classes: the first class of simulations drew randomly from a sample of prices whose last digits were equally likely to be any number from zero through nine -- "the uniform distribution"; the second class of simulations drew from a sample of prices whose distribution followed that reported in Exhibit III -- "the skewed distribution".

Since rounding is to be done on the total bill, the simulations in each class covered the cases of one to ten items purchased at a time. Then, to simulate the net rounding, prices were drawn randomly from the two classes of distributions for single and multiple item purchases ten thousand times and the rounding scheme in The Proplsal was applied. This procedure mimics ten thousand consumers making a single-item purchase, ten thousand making a two-item purchase, and so on. As was discussed earlier on pages 5-6, it is intuitively obvious that a uniform distribution of prices along with single or multiple item purchases will produce no net rounding. However, as the results in Exhibit V dramaticaly show, a non-uniform or skewed distribution leads one to a very different set of inferences regarding rounding.

Exhibit V
SIMULATION ANALYSIS: SKEWED DISTRIBUTION

Number of items	Rounded down	Rounded up	No Rounding
1	2583	7034	383
2	2717	6934	349
3	4987	3766	1247
4	5024	3150	1826
5	4049	3638	2313
6	3709	4098	2193
7	3817	4228	1945
8	4102	4039	1859
9	4122	3898	1980
10	4061	4035	1904

For single and two item purchases the simulations indicate that rounding up will occur about 70% of the time! At the other extreme, ten-item purchases result in approximately no net rounding. This is because as the number of items purchased increases, this has the effect of reducing the incidence of a "9" for the last digit, thereby reducing the probability of net rounding up.

Lest one think there results are "cooked" or simply the result of a single simulation which cannot be replicated, the entire exercise was repeated 200 times -- that is, the 10,000 draws for, say, 5 items purchased were repeated 200 times, and so on. The figures in Exhibit V -- from the first of these runs -- are virtually identical to the average of the 200 repetitions subsequently conducted.

The results are unambiqous; so long as the distribution of prices is nonuniform in a manner consistent with the limited available work on the topic, then the probability of

rounding up or down is definitely skewed in the direction of rounding up. Against this backround, the calculations shown in Exhibit IV on the potential dimensions of the rounding "tax" can be considered conservative. In this regard, it should also be noted that the population below 18 years old -- a group that makes an even larger proportion of its expenditures in cash than adults -- has been ignored. This tends to bias the calculation in Exhibit IV downward, thereby offsetting a variety of other factors which might tend to bias the calculation upward.

Distributional Effects

In a caring and pluralistic society, calculations of aggregate effects need to be supplemented with any available information about the incidence of the potential "tax" on consumers. More specifically, we need to examine the following questions -- will the aggregate effects on consumer expenditures fall disproportionately on any particular segment of society. Unfortunately, available data suggest that those least able to shoulder such burdens will have to bear a disproportionate share of the overall effect.

As casual thought might suggest, the Federal Reserve's surveys confirm that for the poor and other disadvantaged groups, the main means of payment is cash. As Exhibit VI below shows,

Exhibit VI: USE OF CASH IN MAKING EXPENDITURES, 1984

Family Characteristic	Use of Cash as mean share (percentage) of total expenditures
a. Income	
Less than 10,000	53
10 - 19,999	40
20 - 29,999	32
30 - 49,999	29
50,000 or more	18
b. Race or National Origin	
Caucasian	32
Nonwhite or Hispanic	55
c. Education	
Less than 12 years	53
High School Diploma	40
Some College	30
College Degree	24

Source: 1986 Federal Reserve Study, Table 1

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those with incomes under $10,000, nonwhites and Hispanics, and those adults with less than 12 years of education pay for more than half of their total purchases in cash. Since only cash transactions will be subject to rounding, it follows that The Proposal is regressive in that the poor will bear a relatively larger share of the aggregate burden estimated above than will other segments of the society. In effect, the existing regressivity of the sales tax will be reinforced by the regressive effects of any net rounding up which result from The Proposal.(9) The Gallup survey results indicate that affected segments of society are aware of this

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9. For a careful discussion of the regressivity of sales taxes, See J. Pechman, Who Paid the Taxes 1966-1985, Washington, D.C.: The Brookings Institution, 1985.

problem; 64% of those surveyed with incomes under $30,000 opposed The Proposal.

Given that some net rounding up occurs, it is necessary to examine who captures the proceeds of the rounding "tax". In this case, firms, particularly retail outlets will have higher revenue. Part of this income gain will, of course, be taxed away formally by the respective state and Federal governments. The remainder will accrue to firm owners.

Will the Effects on Consumers be Temporary or Permanent?

The conservative estimate of the effect of The Proposal developed above leaves a critical issue up in the air: Will the $600 million "tax" be permanent -- that is, a one-time adjustment of prices upward, with no continuing effects in subsequent years? The answer to this question turns on two fundamental economic principles: one microeconomic principle related to firm pricing decisions and one macroeconomic principle related to the connection between money supply growth and inflation.

Firm Pricing Decisions

If there is one principle economists generally agree on it is that the behavior of firms, that is their employment, production, advertising, and pricing decisions, is guided by a straightforward objective -- the desire to maximize profits. Among the implications of this tenet is the fact that the prices firms post are at the highest level they believe consistent with profit maximation. In other words,

there is no obvious incentive for them to price in a way which will lead to rounding down.(10) In fact, we can be certain that firms' pricing schemes will be designed to take advantage of single item cash purchases and predictable multiple item purchases, such as occurs in fast food outlets, in a way that leads to net rounding up. Any other strategy would appear to be inconsistent with the attempt to maximize profits as this concept is normally defined. Such considerations suggest there will be no tendency for the rounding "tax" to disappear over time.

Federal Reserve Policy, Money Growth and Inflation

A nagging question surrounding The Proposal is the extent to which it might in fact be inflationary -- that is, contribute to continuing increases in the price level, as measured, say, by the Consumer Price Index. From an analytical perspective the way that any net rounding up could have a permanent effect on the overall price level and thus inflation is for the money supply to increase proportionately along with the price rounding. Since the Federal Reserve issues currency and coin on demand, there is a very good

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10. Alan Blinder, distinguished economist from Princeton University, asserts merchants would round down and this leaves room for the sales tax to be rounded up. (Alan Blinder, "Abolishing the Penny Makes Good Sense," Business Week, January 12, 1987, p. 29). Simply put, he offers no evidence, empirical or analytical, to support this assertion.

chance that this is exactly what would happen.(11) More specifically, as cash transactions prices rose, the demand for currency and coin would rise proportionately.(12) As demand rose, the Federal Reserve would increase supply accordingly, thereby tending to accommodate and support the resulting higher price levels.

From a quantitative perspective, I am not inclined to think that this direct effect on the inflation rate is very large. With consumer spending at the end of 1989 totaling about $3.5 trillion, the $600 million rounding "tax" would represent an increase in prices of less than 2/100 of 1%.(13)

While the effect on the rate of change of the CPI would thereby be hardly noticeable, it is worth noting that in dollar terms even a seemingly small effect could cumulate over time to a considerable sum given that virtually all government outlays (e.g., social security benefits, welfare benefits, pensions, interest on the public debt, etc.) and many private sector costs, such as wages and salaries, are indexed or tied, formally or informally to the CPI. To illustrate, the Congressional Budget office estimates that a

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11. For details, see Board of Governors of the Federal Reserve System, The Federal Reserve System: Purposes and Functions, Washington D.C., 1974, Chapters 2 and 3.

12. This conjecture is consistent with the Government's own analysis of the determinants of coin demand; Donna Pope, "Forecasting Coin Needs For the United States," United States Mint, 1990.

13. $600 million / $3.5 trillion = 0.00017.

1 percentage point higher inflation rate beginning in January 1990 would automatically raise Federal government outlays by $88 billion by 1995.(14) Thus, if the rounding "tax" pushes up prices by 1.7/100 of 1 percent (see note 13), Federal government outlays would be about $1.5 billion higher in 1995 than otherwise.(15)

Taken together, these microeconomic and macroeconomic considerations suggest to me that the effects of The Proposal on prices will be permanent rather than temporary, and that although the effect on the inflation rate will be relatively small, the effect in dollar terms on the government and private sectors could well be in the area of $2 billion after 5 years -- a nontrivial figure, especially when measured against and compared to the alleged benefits of The Proposal.

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14. Congressional Budget Office, The Economic and Budget Outlook: Fiscal Years 1991-1995, U.S. Government Printing Office, Washington D.C., January 1990, Table II-8, p. 55

15. $88 billion multiplied by 0.017 = $1.496 billion.

IV. Penny Production: A Profit Center For The Foreseeable Future

A final consideration which has been used to motivate and support The Proposal is the notion that the so-called seigniorage -- that is, government earnings -- associated with the production of pennies will disappear by the end of the decade, resulting in a penny costing more than a cent to produce by the year 2000. Exhibit VII below shows that: (1) the government's earnings have been growing rather than shrinking in recent years; and (2) production costs have, in general, risen less than the inflation rate.

Exhibit VII: SEIGNIORAGE ASSOCIATED WITH PENNY PRODUCTION

Year	Number of Pennies Produced	Cost of Production Per Penny	Government Earnings (1-Cost per penny) x Total Produced
1986	8.934 billion	.659	$ 30.5 million
1987	9.563 billion	.630	$ 35.4 million
1988	11.347 billion	.639	$ 41.0 million

Year	Change in Production Costs	Change in GNP Deflator
1986	---	---
1987	-4.4%	+3.2%
1988	+1.4%	+3.3%

The latter relationship, along with the fact that the President in his Economic Report, OMB in their out-year projections, and the Federal Reserve Chairman in his semi-

annual Congressional testimony have all embraced the goal of declining inflation rates over the decade, suggests to me that any forecast of when the production costs of the penny will exceed one cent should be viewed with skepticism.

V. Concluding Thoughts

The Government's experience with the metric system, the bicentennial $2 bill, and the Anthony dollar coin, along with the recent Gallup survey results which indicate that 62% of the adults surveyed oppose the provisions of The Proposal, suggests to me that the public must be convinced that there is a pressing need to change anything which has become embroidered into the social or commercial fabric of society. Despite a careful examination of the various arguments supporting The Proposal, I cannot identify any net benefits associated with price rounding and the cessation of penny production. Admittedly, the various calculations of the degree of rounding up or down one can make are all subject to some degree of unknown error. But that is just the point -- unless one can convincingly demonstrate that there will be no adverse effects, then the benefits of The Proposal should be sufficiently large to swamp any reasonable estimate of the potential adverse effects. Unfortunately, the benefits of The Proposal appear minimal while the potential adverse effects appear considerable. Simply put, the evidential requirements for sound policymaking are not met by the Price Rounding Act of 1989.

A Gallup Survey of Public Attitudes Toward The Discontinuation Of The One-Cent Coin

Conducted For:

Dudek & Company

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April, 1990

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Introduction

The following report presents the findings of a survey conducted by The Gallup Organization, Inc. for Dudek and Company. The study was designed to measure public attitudes toward the discontinuation of the penny. The study also examined adults' reaction to a new one-dollar coin that would call for the discontinuation of the paper one-dollar bill.

A total of 750 interviews were conducted nationally by telephone during the period of April 23-26 1990. The composition of the sample, tables of recommended sampling tolerances, the design of the Gallup telephone sample, and a copy of the questionnaire are located in the Technical Appendix to this report.

Survey Highlights

ATTITUDES TOWARD THE DISCONTINUATION OF THE PENNY

- Three in five (62%) adults surveyed say they would oppose legislation that would call for the discontinuation of the penny that would require merchants to implement a rounding system. One in four (26%) would favor such legislation.

- Asked how strongly they felt about this issue, those who oppose this legislation are more likely that those who favor it to say they feel very strongly about it.

- Presented with six arguments both for and against the elimination of the penny, respondents more frequently agree with arguments against discontinuation of the penny rather than arguments for discontinuation.

- Virtually everyone (92%) agrees to some excent that the penny is a "long-standing tradition in this country." Even among those who favor discontinuation of the penny, 82% are of this opinion.

- Three-quarters (77%) of those surveyed are concerned that merchants might increase their prices in order to compensate for any losses from a rounding system. However, when asked a follow-up question as to how concerned they were that this might happen, fewer (54%) said they were very concerned.

- Approximately six in ten (59%) think that eliminating the penny will cause confusion when purchasing items.

- Approximately two in five (43%) agree that eliminating the penny would not be a problem since most people try to avoid using them anyway.

- A similar proportion (41%) think it's time to modernize our coinage system.

- Three in ten (31%) agree that continued production of the penny is too expensive, while more (43%) disagree. One in four (26%) could not comment, neither agreeing or disagreeing with this statement.

- The majority of adults surveyed say that elimination of the penny will have an effect upon the economy, though fewer than one in five (18%) believe this will contribute to inflation a great deal.

ATTITUDES TOWARD THE CREATION OF A NEW ONE DOLLAR COIN

- One-third (34%) of the adult public would favor legislation that would call for the creation of a new one dollar coin, while approximately six in ten (59%) oppose such legislation.

- Among respondents who would favor the creation of a new one dollar coin, four in ten say they would approve of abolishing the paper one dollar bill, while 52% would oppose replacement of the one dollar bill. Expressed as a proportion of the total population, 15% would favor creation of a new one dollar coin and abolishing the one dollar bill, while 18% would favor the new coin but oppose abolishing the dollar bill.

DETAILED FINDINGS

ATTITUDES TOWARD THE DISCONTINUATION OF THE PENNY

Attitudes Toward The Discontinuation of the Penny

The Question: *Currently, the Government is considering legislation that would discontinue production of the penny. If this law is passed, the U.S. Mint would stop production of pennies for general circulation. If the penny is discontinued, merchants would be required to round up or down to the nearest five-cent mark. For example, if your purchases totaled $2.33, the merchant would round the total up to $2.35. On the other hand, if your purchases totaled $2.32, the merchant would round down your total to $2.30. How do you feel about this -- do you favor or oppose discontinuation of the penny?*

How strongly do you feel about this -- do you feel very strongly or not too strongly?

A majority of the public report that they oppose legislation that would call for the discontinuation of the penny. Three in five (62%) adults surveyed say they oppose legislation that would stop production of the penny, while one in four (26%) would favor such legislation. Twelve percent, however, are uncertain as to whether or not production of the penny should be discontinued.

While majorities from all demographic groups oppose discontinuation of the penny, women are more likely than men to do so (70% -vs- 54%).

DISCONTINUATION OF THE PENNY

	Total	Sex	
		Male	Female
	%	%	%
Favor discontinuation	26	34	19
Oppose discontinuation	62	54	70
Don't know	12	12	11
	100	100	100
Number of Interviews	(750)	(374)	(376)

Asked how strongly they felt about their opinion, those who oppose the discontinuation of the penny are more likely than respondents who favor discontinuation to say they feel strongly about the issue. Approximately two-thirds (68%) of those who oppose abolishing the penny say they feel strongly about it and 27% not too strongly. This compares to the 41% who favor discontinuation who say they feel strongly about their opinion and 56% not too strongly.

	Oppose Discontinuation %	Favor Discontinuation %
Very strongly	68	41
Not too strongly	27	56
Don't know	5	3
	100	100
Number of Interviews	(465)	(191)

Arguments For and Against The Penny

The Question: ***There are arguments supporting each side of this issue. Some people are in favor of continued production of the penny while other people feel production should be stopped. I am going to read some arguments for both sides. As I read each, please tell me whether you completely agree, somewhat agree, somewhat disagree or completely disagree with the argument. (READ AND ROTATE)***

- *Continued production of the penny is too expensive*
- *The penny is a long-standing tradition in this country*
- *It's time to modernize our coinage system*
- *Eliminating the penny would cause confusion when purchasing items*
- *Merchants might increase prices in order to compensate for any losses from rounding*
- *Eliminating the penny would not be a problem since most people try to avoid using them anyway*

Respondents were read six possible arguments for and against the discontinuation of the penny and were asked to state their agreement or disagreement with each. Virtually everyone (92%) agrees to some extent (completely or somewhat agrees) that the penny is a "long-standing tradition in this country." Most also believe that merchants might increase prices in order to compensate for any losses from a rounding system, i.e. 56% of the adult public completely agree and 21% somewhat agree that merchants might raise prices. Approximately six in ten (59%) agree that eliminating the penny might cause confusion when purchasing items.

Approximately two in five (43%) agree (completely or somewhat) that eliminating the penny would not be a problem since most people try to avoid using them anyway, while 55% disagree with this statement. Similarly, two in five (41%) agree that we need to modernize our coinage system, while 53% disagree. Only three in ten (31%) agree that continued production of the penny is too expensive -vs- 43% who disagree. One in four (26%) are uncertain and could not comment on this statement.

EXTENT OF AGREEMENT/DISAGREEMENT WITH STATEMENT

	Completely Agree %	Somewhat Agree %	Somewhat Disagree %	Completely Disagree %	Don't Know %	Total %
The penny is a long-standing tradition in this country	68	24 (92)*	4	3	1	100
Merchants might increase prices in order to compensate for any losses from rounding	56	21 (77)	9	11	3	100
Eliminating the penny would cause confusion when purchasing items	41	18 (59)	18	21	2	100
Eliminating the penny would not be a problem since most people try to avoid using them anyway	24	19 (43)	21	34	2	100
It's time to modernize our coinage system	18	23 (41)	22	31	6	100
Continued production of the penny is too expensive	12	19 (31)	19	24	26	100

Number of Interviews =750

*Number in parenthesis is the proportion who either agree completely or somewhat agree.

Responses to this question series were analyzed by those who oppose discontinuation of the penny and by those who favor discontinuation as well as by persons who were uncertain whether or not the penny should be discontinued.

Large majorities from all three groups are in agreement that the penny is a long-standing tradition in this country. Agreement is highest (96%) among those who oppose discontinuation of the penny. However, even among those who favor discontinuation, 82% agree; among those who are uncertain whether or not the penny should be discontinued, 87% agree with this statement.

Among those who oppose discontinuation of the penny, 82% agree with the statement, " Merchants might increase prices in order to compensate for any losses when rounding." Those who favor discontinuation or are uncertain are less likely to agree (69% and 68% respectively).

More than seven in ten (72%) adults who oppose discontinuation agree with the statement, "Elimination of the penny will cause confusion during the purchase process" compared with 32% among those who favor ending production of the penny who agree. Those who are not sure fall in middle with nearly half (47%) agreeing with this statement.

Respondents who oppose discontinuation of the penny are much less likely to agree with statements that support discontinuation. Only one in four (24%) who oppose discontinuation agree with the statement, "Eliminating the penny would not be a problem since most people try to avoid using them anyway." This compares to the 83% who favor discontinuation who agree with the statement and the 56% who are uncertain who agree.

Similarly, while 26% of those who oppose discontinuation agree that "It's time to modernize our coinage system", among those who favor discontinuation 79% agree. Two in five (42%) of those who are uncertain agree with this statement.

Very few (15%) of those who oppose discontinuation agree that "continued production of the penny is too expensive" compared to the 62% who favor discontinuation who agree and the 40% who are uncertain who agree.

PERCENT WHO AGREE (COMPLETELY/SOMEWHAT) WITH STATEMENT

		Attitude Toward Discontinuation Of The Penny		
	Total %	Oppose %	Favor %	Not Sure %
Total	100%	62%	26%	12%
The penny is a long-standing tradition in this country.	92	96	82	87
Merchants might increase prices in order to compensate for any losses from rounding	77	82	69	68
Eliminating the penny would cause confusion when purchasing items. . .	59	72	32	47
Eliminating the penny would not be a problem since most people try to avoid using them anyway.	43	24	83	56
It's time to modernize our coinage system	41	26	79	42
Continued production of the penny is too expensive	31	15	62	40
Number of Interviews	(750)	(465)	(191)	(94)

Concern That Merchants Might Raise Prices

The Question: *Some persons are concerned that if the government implements a rounding system for purchases, merchants might take this opportunity to raise prices rather than lose the pennies when rounding down. How much of a concern is this for you -- are you very concerned, not too concerned or not at all concerned that this might happen?*

Over half (54%) of the respondents say they are very concerned that merchants might raise prices if the rounding system were implemented. One-third (32%) report they are not too concerned, while 13% are not at all concerned.

Concern is highest among women (63% are very concerned), those who have not attended college (63%, very concerned) and respondents reporting household incomes of less than $20,000 a year (64%).

CONCERN THAT MERCHANTS MIGHT RAISE PRICES

	Very Concerned %	Not Too Concerned %	Not At All Concerned %	Don't Know %	Total %	Number Of Interviews
Total	54	32	13	1	100	(750)
Sex						
Male	44	35	19	2	100	(374)
Female	63	29	7	1	100	(376)
Education						
No college	63	24	11	1	100	(371)
College	42	41	16	1	100	(374)
Annual Household Income						
Under $20,000	64	24	11	1	100	(189)
$20-$29,999	57	30	12	1	100	(166)
$30,000/over	45	38	16	1	100	(332)

Effect of Discontinuation Of The Penny Upon The Economy

The Question: ***How much of an effect upon the economy, if any, do you believe the elimination of the penny will have -- do you think it will contribute to inflation a great deal, contribute to inflation somewhat or have no effect upon the economy?***

The majority of adults surveyed say that elimination of the penny will have an effect upon the economy, though slightly fewer than one in five believe this will contribute to inflation a great deal. Forty-four percent say it will contribute to inflation somewhat, while 18% think it will contribute to inflation a great deal. An additional three in ten do not think the discontinuation of the penny will have any effect upon the economy.

EFFECT UPON THE ECONOMY

Contribute To Inflation:	Total %
A great deal	18
Somewhat	44
No effect upon the economy	31
Don't know	7
	100
Number of Interviews	(750)

ATTITUDES TOWARD CREATION OF ONE DOLLAR COIN

Attitudes Toward Creation of New One Dollar Coin

The Question: ***The Government is also considering legislation that would create a <u>new</u> one dollar coin. This coin would be more durable than the paper dollar and could be used, for example in vending machines or to pay for public transportation. It will be gold in color, will be slightly larger than the quarter dollar coin and will have smooth edges like the nickel. How do you feel about beginning production of this new one dollar coin -- do you favor or oppose the creation of a new one dollar coin?***

In addition to questioning the public about the penny, everyone was asked their opinion concerning a new one dollar coin.

One-third (34%) of the adult public would favor legislation that would call for the creation of a new one dollar coin, while approximately six in ten (59%) oppose such legislation.

While majorities of both men and women oppose production of a new one-dollar coin, women are more likely than men to do so. Respondents 50 years of age and over are more likely than those under 50 to oppose production of a new one dollar coin. Compared with lower income households, opposition decreases among persons reporting household incomes of $40,000 and over.

PRODUCTION OF NEW ONE DOLLAR COIN

				Age		Household Income		
	Total %	Male %	Female %	Under 50 %	50 & Over %	Under $30,000 %	$30,000 to $39,999 %	$40,000 and Over %
Favor	34	41	27	41	22	30	26	46
Oppose	59	53	64	52	69	61	70	48
Don't know	7	6	9	7	9	9	4	6
	100	100	100	100	100	100	100	100
Number of Interviews	(750)	(374)	(376)	(483)	(257)	(355)	(106)	(226)

Attitudes Toward Discontinuation of The One Dollar Bill

The Question: ***The Government is also considering legislation that would discontinue the production of the one dollar bill. This would only happen if the new one dollar coin is approved. Would you be in favor of abolishing dollar bills and replacing them with dollar coins or not?***

Respondents who said they favored legislation that would call for the production of a new one dollar coin were asked if they would approve of abolishing the paper dollar bill. Among this group, forty-four percent would favor such legislation. Over half (52%) of those who favor the creation of a new one dollar coin say they oppose abolishing the dollar bill and replacing it with the new one dollar coin.

REPLACEMENT OF PAPER DOLLAR BILL WITH NEW COIN

Based on Those Who Favor Creation of
The New One Dollar Coin

	%
Yes, abolish paper dollar bills	43
No, do not favor replacement	52
Don't know	5
	100
Number of Interviews	(252)

TECHNICAL APPENDIX

Composition of the Sample

	%
Total	**100**
Sex	
Male	48
Female	52
	100
Age	
18-34	36
35-49	28
50 and over	35
Undesignated	1
	100
Education	
High School Graduate or less	57
College Incomplete	20
College Graduate	22
Undesignated	1
	100
Annual Household Income	
Under $20,000	28
$20,000-$29,999	23
$30,000-$39,999	14
$40,000 & over	27
Undesignated	8
	100
Region	
East	25
Midwest	25
South	30
West	20
	100

DESIGN OF THE SAMPLE

The sample used for this survey was a proportionate stratified random digit telephone sample drawn from telephone exchanges serving the continental United States.

The random digit aspect of the sample is used to avoid "listing" bias. According to the most recent estimates from the Bureau of the Census, there are 87.5 million households in the United States, and just over 92% of them contain one or more telephones. Telephone directories only list about 74% of such "telephone households," and numerous studies have shown that households with unlisted telephone numbers are different in several important ways from listed households. Moreover, nearly 15% of listed telephone numbers are "discontinued" due to household mobility and directory publishing lag, and it is reasonable to assume that a roughly equal number are working residential numbers too new to be found in published directories.

In order to avoid these various sources of bias, a random digit procedure designed to provide representation of both listed and unlisted (including not-yet-listed) numbers is used. The design of the sample ensures this representation by random generation of the last two digits of telephone numbers selected on the basis of their area code, telephone exchange (the first three digits of a seven digit telephone number), and bank number (the fourth and fifth digits).

The selection procedure produces a sample that is superior to random selection from a frame of listed telephone households, and the superiority is greater to the degree that the assignment of telephone numbers to households is made independently of their publication status in the directory. That is, if unlisted numbers tend to be found in the same telephone banks as listed numbers and if, in general, banks containing relatively few listed numbers also contain relatively few unlisted numbers, then the sample that results from the procedure described below will represent unlisted telephone households fully as well as it represents listed households. Random number selection within banks ensures that all numbers within a particular bank (whether listed or unlisted) have the same likelihood of inclusion in the sample, and that the sample so generated will represent listed and unlisted telephone households in the appropriate proportions.

The first eight digits of the sample telephone numbers (area code, telephone exchange, and bank number) are selected so that they are proportionately stratified by state, county, and telephone exchange within county. That is, the number of telephone numbers randomly sampled from within a given exchange is proportional to that exchange's share of telephone households in the set of exchanges from which the sample is drawn.

32-254 0 - 90 - 6

Only working banks of numbers are selected. A working bank is defined as 100 contiguous telephone numbers containing three or more residential telephone listings. By eliminating non-working banks of numbers from the sample, the likelihood that any sampled telephone number will be associated with a residence increases from only 20% (where all banks of numbers are sampled) to between 60% and 70%.

The sample of telephone numbers produced by this method is thus designed to produce an unbiased random sampling of telephone households in the continental United States.

At each household contacted, an interviewer attempted to conduct an interview with a selected adult. In households where no adult was available when the interviewer called, interviewers were instructed to make up to two additional calls to locate a qualified respondent.

Demographic weighting was applied to the dataset in order to bring the demographic characteristics of the sample into line with the most recently available Census Bureau estimates of the characteristics of the population to which results were to be projected.

The procedures used to draw the sample of telephone numbers, collect the data, and weight the sample of completed interviews were thus designed to allow the projection of survey results to the total population of adults (age 18 and older) living in telephone households in the continental United States.

SAMPLING TOLERANCES

In interpreting survey results, it should be borne in mind that all sample surveys are subject to sampling error, that is, the extent to which the results may differ from what would be obtained if the whole population had been interviewed. The size of such sampling errors depends largely on the number of interviews.

The following tables may be used in estimating the sampling error of any percentage in this report. The computed allowances have taken into account the effect of the sample design upon sampling error. They may be interpreted as indicating the range (plus or minus the figure shown) within which the results of repeated samplings in the same time period could be expected to vary, 95 percent of the time, assuming the same sampling procedures, the same interviewers, and the same questionnaire.

The first table shows how much allowance should be made for the sampling error of a percentage:

RECOMMENDED ALLOWANCE FOR SAMPLING ERROR OF A PERCENTAGE

IN PERCENTAGE POINTS (AT 95 IN 100 CONFIDENCE LEVEL)*

	SAMPLE SIZE									
	750	600	500	400	300	250	200	150	100	50
PERCENTAGES NEAR 10	2	3	3	3	4	4	5	5	6	9
PERCENTAGES NEAR 20	3	4	4	4	5	5	6	7	9	12
PERCENTAGES NEAR 30	4	4	4	5	6	6	7	8	10	14
PERCENTAGES NEAR 40	4	4	5	5	6	7	7	9	11	15
PERCENTAGES NEAR 50	4	4	5	5	6	7	8	9	11	15
PERCENTAGES NEAR 60	4	4	5	5	6	7	7	9	11	15
PERCENTAGES NEAR 70	4	4	4	5	6	6	7	8	10	14
PERCENTAGES NEAR 80	3	4	4	4	5	5	6	7	9	12
PERCENTAGES NEAR 90	2	3	3	3	4	4	5	5	6	9

* THE CHANCES ARE 95 IN 100 THAT THE SAMPLING ERROR IS NOT LARGER THAN THE FIGURE SHOWN.

The table would be used in the following manner: Let us say a reported percentage is 33 for a group which includes 600 respondents. Then we go to row "percentages near 30" in the table and go across to the column headed "600". The number at this point is 4, which means that the 33 percent obtained in the sample is subject to a sampling error of plus or minus 4 points. Another way of saying it is that very probably (95 chances of 100) the true figure would be somewhere between 29 and 37, with the most likely figure the 33 obtained.

In comparing survey results in two samples, such as, for example, men and women, the question arises as to how large a difference between them must be before one can be reasonably sure that it reflects a real difference. In the tables below, the number of points which must be allowed for in such comparisons is indicated.

Two tables are provided. One is for percentages near 20 or 80; the other for percentages near 50. For percentages in between, the error to be allowed for is between those shown in the two tables.

RECOMMENDED ALLOWANCE FOR SAMPLING ERROR OF THE DIFFERENCE BETWEEN 20 % AND 80 %

IN PERCENTAGE POINTS (AT 95 IN 100 CONFIDENCE LEVEL)*

SAMPLE SIZE

	750	600	500	400	300	250	200	150	100	50
750	4									
600	5	5								
500	5	5	5							
400	5	6	6	6						
300	6	6	6	7	7					
250	6	6	7	7	7	8				
200	7	7	7	7	8	8	9			
150	8	8	8	8	9	9	9	10		
100	9	9	9	10	10	10	11	11	12	
50	13	13	13	13	13	13	14	14	15	17

RECOMMENDED ALLOWANCE FOR SAMPLING ERROR OF THE DIFFERENCE BETWEEN 50 % AND 50 %

IN PERCENTAGE POINTS (AT 95 IN 100 CONFIDENCE LEVEL)*

SAMPLE SIZE

	750	600	500	400	300	250	200	150	100	50
750	6									
600	6	6								
500	6	7	7							
400	7	7	7	8						
300	7	8	8	8	9					
250	8	8	8	9	9	10				
200	9	9	9	9	10	10	11			
150	10	10	10	10	11	11	12	12		
100	11	12	12	12	12	13	13	14	15	
50	16	16	16	16	16	17	17	18	19	22

* THE CHANCES ARE 95 IN 100 THAT THE SAMPLING ERROR IS NOT LARGER THAN THE FIGURE SHOWN.

Here is an example of how the tables would be used: Let us say that 50 percent of men responded a certain way and 40 percent of women respond that way also, for a difference of 10 percentage points between them. Can we say with any assurance that the 10-point difference reflects a real difference between men and women on the question? The sample contains approximately 300 men and 300 women. Since the percentages are near 50, we consult Table B, and since the two samples are 300 persons each, we look for the number 9 here. This means that the allowance for error should be 9 points, and that in concluding that the percentage among men is somewhere between 1 and 19 points higher than the percentage among women we should be wrong only about 5 percent of the time. In other words, we can conclude with considerable confidence that a difference exists in the direction observed and that it amounts to at least 1 percentage points.

If, in another case, men's responses amount to 22 percent, say, and women's 24 percent, we consult Table A because these percentages are near 20. We look for the number in the column headed 300 and see that it is 7. Obviously, then, the two-point difference is inconclusive.

THE QUESTIONNAIRE

A Public Opinion Survey
The Gallup Organization, Inc.

Survey # __ __ __
7 8 9

1-2=Z
Case I.D. __ __ __ __
3 4 5 6

Card # __ __
10 11

Wt. Field __ __ __ __
12 13 14 15

SEX 1[ ]Male 2[ ]Female

INTERVIEWER'S NAME:_____

TIME STARTED:_____

TIME ENDED: _____

16-20=Z
ZIP CODE _____

21-22-23-24-25=Z
REPLICATE NUMBER_____

26-27
28-31=Z
DATE:_____

925064
n = 750

April, 1990
Eileen McMurray

INTRODUCTION: Hello, I am_____ calling from The Gallup Organization. I'd like to ask a few questions of the youngest male, 18 years of age or older, who is now at home (**IF NO MALE, ASK:** May I please speak with the oldest female, 18 years of age or older, who is now at home?

GO TO Q.1, PAGE 4

Finally, I'd like to ask you a few questions for statistical purposes only.

PLEASE RECORD ANY VERIFY PHONE NUMBER:

AREA CODE	EXCHANGE	NUMBER
32-33-34	*35-36-37*	*38-39-40-41*

INTERVIEW TIME _____ _____ *42* *43*

D1. CHECK RESPONDENT'S SEX:

1 Male
2 Female

_____ *44*

D2. What is your age?

1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
	0

00 = Don't know

_____ _____ *45* *46*

(ANY AGE IN EXCESS OF 99 IS TO BE CODED "99")

D3. What is the last grade or class that you completed in school? (DO NOT READ)

1 None, or grade 1-4
2 Grades 5, 6 or 7
3 Grade 8
4 High school incomplete (Grades 9-11)
5 High school graduate, Grade 12
6 Technical, trade, or business <u>after</u> high school
7 College/university incomplete
8 College/university graduate or more
9 DON'T KNOW/NO ANSWER

_____ *47*

48-52=Z

D4. Into which of the following categories does your family income fall? Is it over or under $20,000?

(IF "UNDER" ASK:) Is it over or under $10,000?

(IF "OVER" ASK:) Is it over or under $30,000?

(IF "OVER" ASK:) Is it over or under $40,000?

(IF "OVER" ASK:) Is it over or under $50,000?

53 54

1 Less than $10,000
2 $10,000 -$19,999
3 $20,000-$29,999
4 $30,000-$39,999
5 $40,000-$49,999
6 $50,000 or more
7 Don't know
8 Refused

55-57=Z

PHONE MANAGEMENT: 58-77

HOLD 78 79 80

ASK EVERYONE:

I would like to ask you a few questions about the one-cent coin -- the penny.

1. Currently, the Government is considering legislation that would discontinue production of the penny. If this law is passed, the U.S. Mint would stop production of pennies for general circulation. If the penny is discontinued, merchants would be required to round up or down to the nearest five-cent mark. For example, if your purchases totaled $2.33, the merchant would round the total up to $2.35. On the other hand, if your purchases totaled $2.32, the merchant would round down your total to $2.30. How do you feel about this -- do you favor or oppose discontinuation of the penny?

212

1[ ]Favor discontinuation

2[ ]Oppose discontinuation

3[ ]Not sure, uncertain - GO TO Q.3

2. How strongly do you feel about this -- do you feel very strongly or not too strongly?

213

1[ ]Very strongly

2[ ]Not too strongly

3[ ]Don't know

3. There are arguments supporting each side of this issue. Some people are in favor of continued production of the penny while other people feel production should be stopped. I am going to read some arguments for both sides. As I read each, please tell me whether you completely agree, somewhat agree, somewhat disagree or completely disagree with the argument. (READ AND ROTATE)

	Completely Agree	Somewhat Agree	Somewhat Disagree	Completely Disagree	DK	
a) Continued production of the penny is too expensive	1	2	3	4	5	*214*
b) The penny is a long-standing tradition in this country	1	2	3	4	5	*215*
c) It's time to modernize our coinage system	1	2	3	4	5	*216*
d) Eliminating the penny would cause confusion when purchasing items	1	2	3	4	5	*217*
e) Merchants might increase prices in order to compensate for any losses from rounding	1	2	3	4	5	*218*
f) Eliminating the penny would not be a problem since most people try to avoid using them anyway	1	2	3	4	5	*219*

4. Some persons are concerned that if the government implements a rounding system for purchases, merchants might take this opportunity to raise prices rather than lose the pennies when rounding down. How much of a concern is this for you -- are you very concerned, not too concerned or not at all concerned that this might happen?

220
1 Very concerned
2 Not too concerned
3 Not at all concerned
4 Don't know

5. How much of an effect upon the economy, if any, do you believe the elimination of the penny will have -- do you think it will contribute to inflation a great deal, contribute to inflation somewhat or have no effect upon the economy?

221
1 A great deal
2 Somewhat
3 No effect upon the economy
4 Don't know

6. The Government is also considering legislation that would create a new one dollar coin. This coin would be more durable than the paper dollar and could be used, for example in vending machines or to pay for public transportation. It will be gold in color, will be slightly larger than the quarter dollar coin and will have smooth edges like the nickel. How do you feel about beginning production of this new one dollar coin -- do you favor or oppose the creation of a new one dollar coin.?

222
1 Favor
2 Oppose
3 Don't know

—GO TO DEMOGRAPHICS, PAGE 2

7. The Government is also considering legislation that would discontinue the production of the one dollar bill. This would only happen if the new one dollar coin is approved. Would you be in favor of abolishing dollar bills and replacing them with dollar coins or not?

223
1 Yes, abolish dollar bills
2 No, would not favor
3 Not sure/Don't know

INTERVIEWER: NOW GO TO DEMOGRAPHICS, PAGE 2

THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

925064
APRIL, 1990

*** ONE-CENT COIN STUDY ***

Q.1 CURRENTLY, THE GOVERNMENT IS CONSIDERING LEGISLATION THAT WOULD DISCONTINUE PRODUCTION OF THE PENNY. IF THIS LAW IS PASSED, THE U.S. MINT WOULD STOP PRODUCTION OF PENNIES FOR GENERAL CIRCULATION. IF THE PENNY IS DISCONTINUED, MERCHANTS WOULD BE REQUIRED TO ROUND UP OR DOWN TO THE NEAREST FIVE-CENT MARK. FOR EXAMPLE, IF YOUR PURCHASES TOTALED $2.33, THE MERCHANT WOULD ROUND THE TOTAL UP TO $2.35. ON THE OTHER HAND, IF YOUR PURCHASES TOTALED $2.32, THE MERCHANT WOULD ROUND DOWN YOUR TOTAL TO $2.30. HOW DO YOU FEEL ABOUT THIS -- DO YOU FAVOR OR OPPOSE DISCONTINUATION OF THE PENNY?
BASED ON TOTAL RESPONDENTS

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	750	374	376	264	219	257	371	82	289	374	163	211
WEIGHTED BASE	1218	587	631	442	338	423	695	206	488	515	246	269
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
DISCONTINUATION OF THE PENNY												
FAVOR DISCONTINUATION	318	199	119	142	94	79	152	40	113	164	81	83
	26.1	34.0	18.8	32.0	27.8	18.8	21.9	19.2	23.1	31.8	32.9	30.7
OPPOSE DISCONTINUATION	756	315	442	259	210	279	457	136	321	297	141	155
	62.1	53.6	70.0	58.6	62.2	65.8	65.8	66.1	65.7	57.5	57.4	57.7
NOT SURE, UNCERTAIN	143	73	70	41	34	65	85	30	55	55	24	31
	11.8	12.4	11.2	9.3	10.0	15.4	12.3	14.7	11.2	10.7	9.7	11.6

THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

925064
APRIL, 1990

••• ONE-CENT COIN STUDY •••

Q.1 CURRENTLY, THE GOVERNMENT IS CONSIDERING LEGISLATION THAT WOULD DISCONTINUE PRODUCTION OF THE PENNY. IF THIS LAW IS PASSED, THE U.S. MINT WOULD STOP PRODUCTION OF PENNIES FOR GENERAL CIRCULATION. IF THE PENNY IS DISCONTINUED, MERCHANTS WOULD BE REQUIRED TO ROUND UP OR DOWN TO THE NEAREST FIVE-CENT MARK. FOR EXAMPLE, IF YOUR PURCHASES TOTALED $2.33, THE MERCHANT WOULD ROUND THE TOTAL UP TO $2.35. ON THE OTHER HAND, IF YOUR PURCHASES TOTALED $2.32, THE MERCHANT WOULD ROUND DOWN YOUR TOTAL TO $2.30. HOW DO YOU FEEL ABOUT THIS -- DO YOU FAVOR OR OPPOSE DISCONTINUATION OF THE PENNY?

BASED ON TOTAL RESPONDENTS

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	306	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
DISCONTINUATION OF THE PENNY											
FAVOR DISCONTINUATION	318	82	50	132	49	170	121	93	70	97	58
	26.1	24.3	18.1	21.5	28.4	33.6	36.3	30.5	23.1	26.7	23.6
OPPOSE DISCONTINUATION	756	215	192	407	105	277	172	190	187	231	149
	62.1	63.7	69.5	66.3	61.3	54.9	51.6	62.3	62.0	63.2	60.5
NOT SURE, UNCERTAIN	143	40	34	75	18	58	41	22	45	37	39
	11.8	12.0	12.4	12.2	10.3	11.5	12.2	7.3	14.9	10.2	15.9

THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

925064
APRIL, 1990

*** ONE-CENT COIN STUDY ***

Q.2 HOW STRONGLY DO YOU FEEL ABOUT THIS -- DO YOU FEEL VERY STRONGLY OR NOT TOO STRONGLY?
BASED ON THOSE WHO FAVOR DISCONTINUATION OF THE PENNY

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	191	120	71	78	61	50	78	15	63	112	53	59
WEIGHTED BASE	318	199	119	142	94	79	152	40	113	164	81	83
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
FAVOR DISCONTINIATION:												
VERY STRONGLY	128	89	40	47	38	40	73	29	44	54	32	22
	40.4	44.5	33.6	33.2	40.9	50.3	47.7	72.8	38.9	32.8	39.4	26.4
NOT TOO STRONGLY	179	101	78	91	51	36	69	4	65	110	49	61
	56.3	50.8	65.6	64.5	54.8	45.8	45.4	9.8	57.9	67.2	60.6	73.6
DON'T KNOW	10	9	1	3	4	3	10	7	4	-	-	-
	3.3	4.7	0.8	2.3	4.3	3.9	6.8	17.3	3.1	-	-	-

THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

925064
APRIL, 1990

*** ONE-CENT COIN STUDY ***

Q.2 HOW STRONGLY DO YOU FEEL ABOUT THIS -- DO YOU FEEL VERY STRONGLY OR NOT TOO STRONGLY?
BASED ON THOSE WHO FAVOR DISCONTINUATION OF THE PENNY

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	191	43	29	72	30	108	78	51	49	60	31
WEIGHTED BASE	318	82	50	132	49	170	121	93	70	97	58
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
FAVOR DISCONTINIATION:											
VERY STRONGLY	128	45	19	64	17	59	42	38	22	45	23
	40.4	54.9	38.4	48.7	34.2	34.7	34.9	40.9	31.5	46.5	40.0
NOT TOO STRONGLY	179	34	28	62	30	108	79	53	44	48	35
	56.3	41.3	56.0	46.9	61.1	64.0	65.1	56.7	62.7	49.4	60.0
DON'T KNOW	10	3	3	6	2	2	-	2	4	4	-
	3.3	3.8	5.5	4.4	4.6	1.3	-	2.4	5.9	4.2	-

*** ONE-CENT COIN STUDY ***

Q.2 HOW STRONGLY DO YOU FEEL ABOUT THIS -- DO YOU FEEL VERY STRONGLY OR NOT TOO STRONGLY?
BASED ON THOSE WHO OPPOSE DISCONTINUATION OF THE PENNY

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	465	205	260	159	135	165	245	53	192	218	94	124
WEIGHTED BASE	756	315	442	259	210	279	457	136	321	297	141	155
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
OPPOSE DISCONTINIATION:												
VERY STRONGLY	515	232	282	158	156	196	311	100	211	203	101	102
	68.0	73.8	63.9	61.1	74.2	70.5	67.9	73.1	65.7	68.4	71.3	65.8
NOT TOO STRONGLY	204	70	133	90	45	65	115	28	87	87	37	51
	26.9	22.4	30.2	34.7	21.2	23.2	25.1	20.6	27.0	29.4	26.0	32.6
DON'T KNOW	38	12	26	11	10	18	32	9	23	6	4	2
	5.0	3.8	5.9	4.2	4.6	6.3	7.0	6.3	7.2	2.1	2.7	1.6

THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

925064
APRIL, 1990

••• ONE-CENT COIN STUDY •••

Q.2 HOW STRONGLY DO YOU FEEL ABOUT THIS -- DO YOU FEEL VERY STRONGLY OR NOT TOO STRONGLY?
BASED ON THOSE WHO OPPOSE DISCONTINUATION OF THE PENNY

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	465	119	117	236	66	185	119	104	136	143	82
WEIGHTED BASE	756	215	192	407	105	277	172	190	187	231	149
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
OPPOSE DISCONTINIATION:											
VERY STRONGLY	515	159	124	283	70	179	109	127	124	156	107
	68.0	74.0	64.5	69.5	66.3	64.6	63.6	66.6	66.7	67.6	72.2
NOT TOO STRONGLY	204	43	62	105	29	83	54	50	51	63	39
	26.9	20.0	32.4	25.8	27.6	29.8	31.2	26.2	27.6	27.3	26.4
DON'T KNOW	38	13	6	19	6	15	9	14	11	12	2
	5.0	6.0	3.1	4.6	6.1	5.6	5.2	7.2	5.8	5.0	1.3

THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

925064
APRIL, 1990

*** ONE-CENT COIN STUDY ***

Q.3 THERE ARE ARGUMENTS SUPPORTING EACH SIDE OF THIS ISSUE. SOME PEOPLE ARE IN FAVOR OF CONTINUED PRODUCTION OF THE PENNY WHILE OTHER PEOPLE FEEL PRODUCTION SHOULD BE STOPPED. I AM GOING TO READ SOME ARGUMENTS (*) FOR BOTH SIDES. AS I READ EACH, PLEASE TELL ME WHETHER YOU COMPLETELY AGREE, SOMEWHAT AGREE, SOMEWHAT DISAGREE OR COMPLETELY DISAGREE WITH THE ARGUMENT.

BASED ON TOTAL RESPONDENTS

(*) CONTINUED PRODUCTION OF THE PENNY IS TOO EXPENSIVE

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	750	374	376	264	219	257	371	82	289	374	163	211
WEIGHTED BASE	1218	587	631	442	338	423	695	206	488	515	246	269
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT												
COMPLETELY AGREE	143	102	41	36	39	66	73	25	48	68	28	40
	11.7	17.4	6.4	8.2	11.6	15.5	10.5	12.0	9.9	13.1	11.3	14.7
SOMEWHAT AGREE	226	125	101	111	62	51	111	28	84	115	67	48
	18.6	21.4	16.0	25.1	18.4	11.9	16.0	13.4	17.1	22.3	27.3	17.7
SOMEWHAT DISAGREE	236	95	141	98	64	70	127	39	88	108	55	53
	19.3	16.1	22.3	22.1	19.0	16.6	18.3	19.0	18.0	21.0	22.5	19.7
COMPLETELY DISAGREE	293	138	155	96	81	111	207	66	140	85	36	49
	24.0	23.5	24.5	21.7	23.9	26.2	29.8	32.2	28.7	16.4	14.5	18.2
DON'T KNOW	321	127	194	101	92	126	176	48	128	140	60	80
	26.3	21.6	30.7	22.9	27.1	29.8	25.4	23.4	26.2	27.1	24.3	29.7

THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

925064
APRIL, 1990

••• ONE-CENT COIN STUDY •••

Q.3 THERE ARE ARGUMENTS SUPPORTING EACH SIDE OF THIS ISSUE. SOME PEOPLE ARE IN FAVOR OF CONTINUED PRODUCTION OF THE PENNY WHILE OTHER PEOPLE FEEL PRODUCTION SHOULD BE STOPPED. I AM GOING TO READ SOME ARGUMENTS (*) FOR BOTH SIDES. AS I READ EACH, PLEASE TELL ME WHETHER YOU COMPLETELY AGREE, SOMEWHAT AGREE, SOMEWHAT DISAGREE OR COMPLETELY DISAGREE WITH THE ARGUMENT.
BASED ON TOTAL RESPONDENTS

(*) CONTINUED PRODUCTION OF THE PENNY IS TOO EXPENSIVE

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	306	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT											
COMPLETELY AGREE	143	34	29	63	24	69	45	42	35	49	17
	11.7	10.0	10.7	10.3	14.0	13.8	13.6	13.7	11.7	13.3	6.9
SOMEWHAT AGREE	226	54	33	87	26	120	94	48	62	62	54
	18.6	16.0	12.0	14.2	15.0	23.8	28.3	15.8	20.7	16.9	22.0
SOMEWHAT DISAGREE	236	67	73	141	39	86	47	62	60	75	38
	19.3	20.0	26.5	22.9	22.6	17.0	14.1	20.4	19.9	20.7	15.4
COMPLETELY DISAGREE	293	97	69	165	45	95	50	86	48	107	52
	24.0	28.6	24.9	26.9	26.2	18.8	14.9	28.0	15.8	29.4	21.2
DON'T KNOW	321	86	72	157	38	135	96	68	96	72	85
	26.3	25.4	25.9	25.7	22.2	26.7	29.0	22.2	31.9	19.7	34.5

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BASED ON TOTAL RESPONDENTS

(*) CONTINUED PRODUCTION OF THE PENNY IS TOO EXPENSIVE

	Q.1 DISCONTINUATTION OF THE PENNY			
	TOTAL	FAVOR	OPPOSE	NOT SURE, UNCERTAIN
TOTAL RESPONDENTS	750	191	465	94
WEIGHTED BASE	1218	318	756	143
	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT				
COMPLETELY AGREE	143	98	28	16
	11.7	30.9	3.7	11.2
SOMEWHAT AGREE	226	98	87	41
	18.6	30.7	11.6	28.7
SOMEWHAT DISAGREE	236	28	190	18
	19.3	8.7	25.1	12.6
COMPLETELY DISAGREE	293	23	259	10
	24.0	7.3	34.2	7.2
DON'T KNOW	321	71	192	58
	26.3	22.4	25.3	40.3

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BASED ON TOTAL RESPONDENTS

(•) THE PENNY IS A LONG-STANDING TRADITION IN THIS COUNTRY

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	750	374	376	264	219	257	371	82	289	374	163	211
WEIGHTED BASE	1218	587	631	442	338	423	695	206	488	515	246	269
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT												
COMPLETELY AGREE	823	400	423	287	212	315	505	163	341	314	160	154
	67.6	68.2	67.0	65.0	62.7	74.3	72.6	79.1	69.9	60.9	65.0	57.1
SOMEWHAT AGREE	289	123	166	113	89	83	149	34	114	140	59	82
	23.7	20.9	26.3	25.6	26.2	19.6	21.4	16.6	23.4	27.2	23.8	30.4
SOMEWHAT DISAGREE	52	33	19	22	18	11	23	7	17	28	12	16
	4.2	5.6	3.0	5.1	5.4	2.6	3.4	3.3	3.4	5.5	5.0	5.9
COMPLETELY DISAGREE	36	19	17	12	17	8	10	-	10	27	10	16
	3.0	3.3	2.7	2.7	4.9	1.9	1.4	-	2.0	5.2	4.2	6.0
DON'T KNOW	18	12	6	7	3	6	9	2	7	6	5	2
	1.5	2.0	1.0	1.6	0.8	1.5	1.2	1.0	1.3	1.2	1.9	0.6

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BASED ON TOTAL RESPONDENTS

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		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	306	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT											
COMPLETELY AGREE	823	246	214	460	102	293	191	198	224	243	158
	67.6	72.9	77.5	75.0	59.4	58.0	57.3	64.8	74.2	66.6	64.5
SOMEWHAT AGREE	289	69	53	122	47	144	97	70	55	100	64
	23.7	20.4	19.3	19.9	27.1	28.5	29.2	22.8	18.1	27.5	26.1
SOMEWHAT DISAGREE	52	11	5	16	8	35	27	16	13	9	14
	4.2	3.1	2.0	2.6	4.8	6.9	8.0	5.4	4.3	2.4	5.5
COMPLETELY DISAGREE	36	1	4	5	13	30	17	14	9	10	4
	3.0	0.4	1.3	0.8	7.8	6.0	5.1	4.6	2.9	2.8	1.4
DON'T KNOW	18	11	-	11	2	3	2	8	2	3	6
	1.5	3.1	-	1.7	0.9	0.6	0.5	2.5	0.5	0.7	2.5

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BASED ON TOTAL RESPONDENTS

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		Q.1 DISCONTINUATTION OF THE PENNY		
	TOTAL	FAVOR	OPPOSE	NOT SURE, UNCERTAIN
TOTAL RESPONDENTS	750	191	465	94
WEIGHTED BASE	1218	318	756	143
	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT				
COMPLETELY AGREE	823	171	573	79
	67.6	53.9	75.8	54.9
SOMEWHAT AGREE	289	88	155	46
	23.7	27.5	20.5	32.3
SOMEWHAT DISAGREE	52	30	18	4
	4.2	9.4	2.4	2.6
COMPLETELY DISAGREE	36	24	6	6
	3.0	7.7	0.8	4.1
DON'T KNOW	18	5	4	9
	1.5	1.5	0.6	6.2

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BASED ON TOTAL RESPONDENTS

(•) IT'S TIME TO MODERNIZE OUR COINAGE SYSTEM

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	750	374	376	264	219	257	371	82	289	374	163	211
WEIGHTED BASE	1218	587	631	442	338	423	695	206	488	515	246	269
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT												
COMPLETELY AGREE	222	141	80	75	70	72	117	33	83	100	55	45
	18.2	24.0	12.8	16.9	20.7	17.0	16.8	16.1	17.1	19.4	22.4	16.6
SOMEWHAT AGREE	285	139	146	130	62	92	178	61	116	105	44	61
	23.4	23.7	23.1	29.3	18.3	21.8	25.6	29.6	23.8	20.3	17.7	22.7
SOMEWHAT DISAGREE	262	103	159	102	73	83	119	33	86	143	69	75
	21.5	17.5	25.2	23.0	21.7	19.7	17.1	16.1	17.6	27.8	27.8	27.7
COMPLETELY DISAGREE	373	172	201	124	111	134	226	59	167	146	72	75
	30.6	29.3	31.8	28.0	32.7	31.8	32.5	28.6	34.2	28.4	29.1	27.8
DON'T KNOW	77	32	44	12	22	41	55	20	36	21	7	14
	6.3	5.5	7.0	2.7	6.5	9.8	8.0	9.5	7.3	4.2	3.0	5.2

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BASED ON TOTAL RESPONDENTS

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		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	306	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT											
COMPLETELY AGREE	222	61	35	96	29	106	77	55	48	80	38
	18.2	18.2	12.6	15.7	16.8	20.9	23.1	18.1	16.0	21.9	15.5
SOMEWHAT AGREE	285	76	70	147	31	113	82	69	77	74	65
	23.4	22.6	25.4	23.9	17.8	22.3	24.6	22.6	25.6	20.2	26.4
SOMEWHAT DISAGREE	262	61	77	137	44	108	64	58	63	84	57
	21.5	18.0	27.7	22.4	25.3	21.3	19.2	19.0	20.9	23.0	23.2
COMPLETELY DISAGREE	373	105	80	184	64	155	91	108	88	112	65
	30.6	31.1	28.8	30.1	37.2	30.7	27.3	35.3	29.2	30.6	26.4
DON'T KNOW	77	34	15	49	5	24	19	15	25	16	21
	6.3	10.0	5.5	8.0	3.0	4.8	5.7	5.0	8.4	4.3	8.5

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BASED ON TOTAL RESPONDENTS

(*) IT'S TIME TO MODERNIZE OUR COINAGE SYSTEM

		Q.1 DISCONTINUATTION OF THE PENNY		
	TOTAL	FAVOR	OPPOSE	NOT SURE, UNCERTAIN
TOTAL RESPONDENTS	750	191	465	94
WEIGHTED BASE	1218	318	756	143
	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT				
COMPLETELY AGREE	222	144	58	20
	18.2	45.1	7.7	13.9
SOMEWHAT AGREE	285	107	138	40
	23.4	33.5	18.3	28.0
SOMEWHAT DISAGREE	262	29	206	27
	21.5	9.1	27.2	19.1
COMPLETELY DISAGREE	373	32	320	21
	30.6	9.9	42.3	14.8
DON'T KNOW	77	8	35	35
	6.3	2.4	4.6	24.2

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BASED ON TOTAL RESPONDENTS

(•) ELIMINATING THE PENNY WOULD CAUSE CONFUSION WHEN PURCHASING ITEMS

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	750	374	376	264	219	257	371	82	289	374	163	211
WEIGHTED BASE	1218	587	631	442	338	423	695	206	488	515	246	269
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT												
COMPLETELY AGREE	498	198	300	175	129	187	311	92	219	185	88	96
	40.9	33.7	47.6	39.5	38.3	44.2	44.7	44.5	44.9	35.8	35.9	35.7
SOMEWHAT AGREE	215	98	116	73	68	74	122	42	80	93	54	39
	17.6	16.7	18.5	16.5	20.2	17.4	17.5	20.3	16.3	18.1	21.8	14.7
SOMEWHAT DISAGREE	221	124	97	83	63	71	120	36	84	100	37	63
	18.2	21.1	15.4	18.9	18.7	16.7	17.2	17.4	17.2	19.4	15.0	23.4
COMPLETELY DISAGREE	259	154	105	105	73	77	126	33	94	130	62	69
	21.2	26.3	16.6	23.8	21.6	18.1	18.2	15.9	19.2	25.3	25.0	25.5
DON'T KNOW	25	13	13	6	4	15	16	4	12	8	6	2
	2.1	2.2	2.0	1.3	1.2	3.6	2.3	1.9	2.5	1.5	2.3	0.7

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		ANNUAL HOUSEHOLD INCOME							REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	305	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT											
COMPLETELY AGREE	498	157	120	277	82	185	103	111	124	176	87
	40.9	46.5	43.4	45.1	47.5	36.6	31.0	36.4	41.1	48.2	35.3
SOMEWHAT AGREE	215	59	55	114	15	78	63	41	67	58	49
	17.6	17.5	19.9	18.6	8.5	15.4	19.0	13.3	22.3	15.9	19.9
SOMEWHAT DISAGREE	221	58	48	106	35	99	64	57	53	58	54
	18.2	17.2	17.4	17.3	20.3	19.6	19.2	18.5	17.5	15.8	22.0
COMPLETELY DISAGREE	259	48	52	100	39	138	99	93	51	66	48
	21.2	14.3	18.8	16.3	22.8	27.3	29.6	30.4	17.0	18.1	19.6
DON'T KNOW	25	15	1	17	2	6	4	4	6	7	8
	2.1	4.5	0.5	2.7	0.9	1.1	1.2	1.4	2.1	1.9	3.1

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	Q.1 DISCONTINUATTION OF THE PENNY			
	TOTAL	FAVOR	OPPOSE	NOT SURE, UNCERTAIN
TOTAL RESPONDENTS	750	191	465	94
WEIGHTED BASE	1218	318	756	143
	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT				
COMPLETELY AGREE	498	42	411	45
	40.9	13.3	54.4	31.1
SOMEWHAT AGREE	215	60	131	23
	17.6	18.9	17.4	16.2
SOMEWHAT DISAGREE	221	78	110	33
	18.2	24.6	14.5	22.8
COMPLETELY DISAGREE	259	135	94	30
	21.2	42.3	12.4	21.1
DON'T KNOW	25	3	10	13
	2.1	1.0	1.3	8.8

*** ONE-CENT COIN STUDY ***

Q.3 THERE ARE ARGUMENTS SUPPORTING EACH SIDE OF THIS ISSUE. SOME PEOPLE ARE IN FAVOR OF CONTINUED PRODUCTION OF THE PENNY WHILE OTHER PEOPLE FEEL PRODUCTION SHOULD BE STOPPED. I AM GOING TO READ SOME ARGUMENTS (*) FOR BOTH SIDES. AS I READ EACH, PLEASE TELL ME WHETHER YOU COMPLETELY AGREE, SOMEWHAT AGREE, SOMEWHAT DISAGREE OR COMPLETELY DISAGREE WITH THE ARGUMENT.
BASED ON TOTAL RESPONDENTS

(*) MERCHANTS MIGHT INCREASE PRICES IN ORDER TO COMPENSATE FOR ANY LOSSES FROM ROUNDING

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	750	374	376	264	219	257	371	82	289	374	163	211
WEIGHTED BASE	1218	587	631	442	338	423	695	206	488	515	246	269
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT												
COMPLETELY AGREE	678	289	390	257	206	204	372	86	286	303	156	147
	55.7	49.2	61.7	58.1	61.0	48.3	53.5	41.6	58.6	58.9	63.4	54.7
SOMEWHAT AGREE	261	141	120	95	58	108	151	63	88	110	52	58
	21.4	23.9	19.0	21.5	17.0	25.5	21.7	30.3	18.0	21.4	21.0	21.7
SOMEWHAT DISAGREE	115	71	44	47	38	30	65	15	50	50	20	30
	9.4	12.0	7.0	10.6	11.1	7.1	9.3	7.0	10.3	9.6	8.1	11.1
COMPLETELY DISAGREE	131	67	64	37	34	58	81	37	44	47	17	30
	10.7	11.5	10.1	8.4	10.0	13.7	11.6	17.9	9.0	9.1	6.9	11.2
DON'T KNOW	33	20	14	6	3	23	27	7	20	5	2	4
	2.7	3.3	2.2	1.3	0.9	5.5	3.8	3.2	4.1	1.0	0.6	1.4

THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

925064
APRIL, 1990

*** ONE-CENT COIN STUDY ***

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BASED ON TOTAL RESPONDENTS

(*) MERCHANTS MIGHT INCREASE PRICES IN ORDER TO COMPENSATE FOR ANY LOSSES FROM ROUNDING

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	306	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT											
COMPLETELY AGREE	678	164	163	327	105	282	177	172	168	200	139
	55.7	48.7	59.1	53.4	61.3	55.9	53.1	56.2	55.6	54.7	56.7
SOMEWHAT AGREE	261	80	59	139	26	109	83	62	69	79	51
	21.4	23.8	21.2	22.6	15.1	21.6	24.9	20.1	22.9	21.7	20.7
SOMEWHAT DISAGREE	115	25	25	50	21	60	39	34	31	32	18
	9.4	7.5	9.1	8.2	12.4	11.9	11.6	11.1	10.2	8.6	7.5
COMPLETELY DISAGREE	131	48	24	71	16	49	33	32	23	50	26
	10.7	14.2	8.5	11.6	9.5	9.8	9.9	10.5	7.6	13.6	10.6
DON'T KNOW	33	20	6	25	3	4	2	6	11	5	11
	2.7	5.8	2.0	4.1	1.6	0.9	0.5	2.0	3.7	1.4	4.5

THE GALLUP ORGANIZATION, INC.
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BASED ON TOTAL RESPONDENTS

(•) MERCHANTS MIGHT INCREASE PRICES IN ORDER TO COMPENSATE FOR ANY LOSSES FROM ROUNDING

		Q.1 DISCONTINUATTION OF THE PENNY		
	TOTAL	FAVOR	OPPOSE	NOT SURE, UNCERTAIN
TOTAL RESPONDENTS	750	191	465	94
WEIGHTED BASE	1218	318	756	143
	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT				
COMPLETELY AGREE	678	119	506	53
	55.7	37.5	66.9	36.9
SOMEWHAT AGREE	261	99	117	44
	21.4	31.2	15.5	30.6
SOMEWHAT DISAGREE	115	49	55	11
	9.4	15.3	7.3	7.6
COMPLETELY DISAGREE	131	46	64	21
	10.7	14.3	8.5	14.5
DON'T KNOW	33	5	13	15
	2.7	1.7	1.8	10.3

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BASED ON TOTAL RESPONDENTS

(*) ELIMINATING THE PENNY WOULD NOT BE A PROBLEM SINCE MOST PEOPLE TRY TO AVOID USING THEM ANYWAY

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	750	374	376	264	219	257	371	82	289	374	163	211
WEIGHTED BASE	1218	587	631	442	338	423	695	206	488	515	246	269
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT												
COMPLETELY AGREE	296	196	100	93	85	114	178	71	108	113	51	62
	24.3	33.5	15.8	21.0	25.1	27.0	25.7	34.2	22.1	22.0	20.7	23.1
SOMEWHAT AGREE	231	123	108	110	64	54	116	34	83	115	57	58
	19.0	20.9	17.1	24.8	19.1	12.9	16.7	16.2	16.9	22.3	23.1	21.5
SOMEWHAT DISAGREE	252	101	152	103	70	80	135	39	97	116	61	54
	20.7	17.1	24.1	23.3	20.7	18.8	19.5	18.7	19.8	22.5	24.9	20.2
COMPLETELY DISAGREE	412	160	253	131	116	159	250	64	186	162	74	89
	33.9	27.2	40.0	29.6	34.4	37.6	36.0	30.8	38.2	31.5	29.9	32.9
DON'T KNOW	26	7	19	6	3	16	15	-	15	9	3	6
	2.1	1.3	3.0	1.4	0.8	3.7	2.2	-	3.1	1.8	1.4	2.3

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BASED ON TOTAL RESPONDENTS

(*) ELIMINATING THE PENNY WOULD NOT BE A PROBLEM SINCE MOST PEOPLE TRY TO AVOID USING THEM ANYWAY

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	306	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT											
COMPLETELY AGREE	296	89	59	147	42	129	87	82	79	84	51
	24.3	26.3	21.2	24.0	24.4	25.7	26.3	26.7	26.3	23.1	20.8
SOMEWHAT AGREE	231	51	39	90	24	122	98	66	47	53	64
	19.0	15.0	14.3	14.7	14.0	24.2	29.5	21.5	15.7	14.6	26.2
SOMEWHAT DISAGREE	252	63	82	145	42	98	56	61	58	98	36
	20.7	18.7	29.7	23.6	24.3	19.4	16.8	19.9	19.3	26.7	14.6
COMPLETELY DISAGREE	412	126	93	219	59	149	90	93	108	125	87
	33.9	37.4	33.6	35.7	34.1	29.5	27.1	30.4	35.7	34.2	35.4
DON'T KNOW	26	9	4	12	5	7	1	5	9	5	7
	2.1	2.5	1.3	2.0	3.2	1.3	0.3	1.6	3.0	1.4	3.0

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BASED ON TOTAL RESPONDENTS

(*) ELIMINATING THE PENNY WOULD NOT BE A PROBLEM SINCE MOST PEOPLE TRY TO AVOID USING THEM ANYWAY

		Q.1 DISCONTINUATTION OF THE PENNY		
	TOTAL	FAVOR	OPPOSE	NOT SURE, UNCERTAIN
TOTAL RESPONDENTS	750	191	465	94
WEIGHTED BASE	1218	318	756	143
	100.0	100.0	100.0	100.0
LEVEL OF AGREEMENT				
COMPLETELY AGREE	296	177	77	43
	24.3	55.6	10.1	29.7
SOMEWHAT AGREE	231	87	107	37
	19.0	27.2	14.2	25.9
SOMEWHAT DISAGREE	252	27	192	34
	20.7	8.4	25.4	23.6
COMPLETELY DISAGREE	412	23	370	19
	33.9	7.3	49.0	13.1
DON'T KNOW	26	5	10	11
	2.1	1.6	1.3	7.6

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*** ONE-CENT COIN STUDY ***

Q.4 SOME PERSONS ARE CONCERNED THAT IF THE GOVERNMENT IMPLEMENTS A ROUNDING SYSTEM FOR PURCHASES, MERCHANTS MIGHT TAKE THIS OPPORTUNITY TO RAISE PRICES RATHER THAN LOSE THE PENNIES WHEN ROUNDING DOWN. HOW MUCH OF A CONCERN IS THIS FOR YOU -- ARE YOU VERY CONCERNED, NOT TOO CONCERNED OR NOT AT ALL CONCERNED THAT THIS MIGHT HAPPEN?
BASED ON TOTAL RESPONDENTS

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	750	374	376	264	219	257	371	82	289	374	163	211
WEIGHTED BASE	1218	587	631	442	338	423	695	206	488	515	246	269
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
DEGREE OF CONCERN												
VERY CONCERNED	657	259	398	212	187	249	436	133	303	218	107	112
	54.0	44.1	63.1	48.0	55.2	58.9	62.7	64.5	61.9	42.4	43.4	41.4
NOT TOO CONCERNED	384	204	180	183	90	110	170	47	124	212	110	101
	31.5	34.7	28.6	41.4	26.6	25.9	24.5	22.6	25.4	41.1	44.8	37.7
NOT AT ALL CONCERNED	161	114	47	42	58	59	79	27	52	81	25	56
	13.2	19.5	7.4	9.4	17.1	14.0	11.3	12.9	10.6	15.8	10.3	20.9
DON'T KNOW	16	10	6	5	4	5	10	-	10	4	4	-
	1.3	1.7	0.9	1.1	1.1	1.2	1.4	-	2.1	0.7	1.5	-

THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

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BASED ON TOTAL RESPONDENTS

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	306	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
DEGREE OF CONCERN											
VERY CONCERNED	657	217	157	373	88	225	137	173	152	216	117
	54.0	64.3	56.7	60.9	51.0	44.6	41.3	56.5	50.5	59.1	47.4
NOT TOO CONCERNED	384	81	83	164	57	193	135	81	116	100	87
	31.5	23.9	30.0	26.7	33.4	38.2	40.7	26.5	38.5	27.4	35.3
NOT AT ALL CONCERNED	161	37	33	69	22	81	59	47	30	47	36
	13.2	10.8	11.8	11.3	13.1	16.1	17.6	15.5	10.1	12.9	14.9
DON'T KNOW	16	3	4	7	4	6	1	5	3	2	6
	1.3	1.0	1.4	1.2	2.5	1.1	0.4	1.5	0.9	0.7	2.4

THE GALLUP ORGANIZATION, INC.
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*** ONE-CENT COIN STUDY ***

Q.5 HOW MUCH OF AN EFFECT UPON THE ECONOMY, IF ANY, DO YOU BELIEVE THE ELIMINATION OF THE PENNY WILL HAVE -- DO YOU THINK IT WILL CONTRIBUTE TO INFLATION A GREAT DEAL, CONTRIBUTE TO INFLATION SOMEWHAT OR HAVE NO EFFECT UPON THE ECONOMY?
BASED ON TOTAL RESPONDENTS

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	750	374	376	264	219	257	371	82	289	374	163	211
WEIGHTED BASE	1218	587	631	442	338	423	695	206	488	515	246	269
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EFFECT UPON ECONOMY												
A GREAT DEAL	217	88	129	79	61	74	150	46	104	65	33	32
	17.8	15.0	20.4	17.9	18.0	17.5	21.6	22.5	21.2	12.6	13.4	12.0
SOMEWHAT	535	235	300	234	152	144	299	75	224	236	119	117
	43.9	40.0	47.6	52.9	44.9	33.9	43.1	36.4	45.9	45.7	48.3	43.3
NO EFFECT UPON THE ECONOMY	381	248	133	116	114	147	178	57	121	198	87	111
	31.3	42.2	21.1	26.3	33.6	34.7	25.6	27.8	24.7	38.4	35.3	41.4
DON'T KNOW	85	17	69	13	12	59	67	27	40	16	7	9
	7.0	2.9	10.9	3.0	3.5	13.8	9.7	13.2	8.2	3.2	3.0	3.4

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*** ONE-CENT COIN STUDY ***

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BASED ON TOTAL RESPONDENTS

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	306	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EFFECT UPON ECONOMY											
A GREAT DEAL	217	86	52	137	34	60	26	55	37	88	37
	17.8	25.4	18.7	22.4	19.7	12.0	7.9	17.9	12.3	24.1	15.1
SOMEWHAT	535	125	122	247	71	248	177	127	142	154	112
	43.9	37.2	44.0	40.3	41.2	49.1	53.2	41.7	47.1	42.1	45.7
NO EFFECT UPON THE ECONOMY	381	91	87	178	58	177	119	104	90	105	82
	31.3	27.1	31.5	29.1	33.8	35.1	35.8	34.1	29.7	28.7	33.4
DON'T KNOW	85	35	16	51	9	19	10	19	33	19	14
	7.0	10.4	5.8	8.3	5.3	3.8	3.1	6.3	10.9	5.1	5.9

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*** ONE-CENT COIN STUDY ***

Q.6 THE GOVERNMENT IS ALSO CONSIDERING LEGISLATION THAT WOULD CREATE A NEW ONE DOLLAR COIN. THIS COIN WOULD BE MORE DURABLE THAN THE PAPER DOLLAR AND COULD BE USED, FOR EXAMPLE IN VENDING MACHINES OR TO PAY FOR PUBLIC TRANSPORTATION. IT WILL BE GOLD IN COLOR, WILL BE SLIGHTLY LARGER THAN THE QUARTER DOLLAR COIN AND WILL HAVE SMOOTH EDGES LIKE THE NICKEL. HOW DO YOU FEEL ABOUT BEGINNING PRODUCTION OF THIS NEW ONE DOLLAR COIN -- DO YOU FAVOR OR OPPOSE THE CREATION OF A NEW ONE DOLLAR COIN?

BASED ON TOTAL RESPONDENTS

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	750	374	376	264	219	257	371	82	289	374	163	211
WEIGHTED BASE	1218	587	631	442	338	423	695	206	488	515	246	269
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NEW ONE DOLLAR COIN												
FAVOR	411	242	168	190	126	93	225	67	158	184	82	102
	33.7	41.3	26.7	43.0	37.4	22.0	32.4	32.3	32.4	35.7	33.2	38.0
OPPOSE	715	310	405	230	179	294	413	122	291	298	144	154
	58.7	52.9	64.2	52.1	53.0	69.4	59.4	58.9	59.7	57.8	58.6	57.1
DON'T KNOW	92	34	58	22	32	36	57	18	39	34	20	13
	7.5	5.8	9.1	4.9	9.6	8.6	8.2	8.8	7.9	6.5	8.2	5.0

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BASED ON TOTAL RESPONDENTS

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	306	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NEW ONE DOLLAR COIN											
FAVOR	411	91	90	182	44	199	154	105	84	135	87
	33.7	27.1	32.6	29.6	25.8	39.3	46.3	34.4	27.7	36.9	35.5
OPPOSE	715	211	164	375	121	281	160	174	194	210	137
	58.7	62.5	59.5	61.2	70.4	55.7	48.0	56.8	64.5	57.6	55.9
DON'T KNOW	92	35	22	56	6	25	19	27	23	20	21
	7.5	10.3	7.8	9.2	3.7	5.0	5.7	8.9	7.8	5.5	8.6

THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

925064
APRIL, 1990

*** ONE-CENT COIN STUDY ***

Q.7 THE GOVERNMENT IS ALSO CONSIDERING LEGISLATION THAT WOULD DISCONTINUE THE PRODUCTION OF THE ONE DOLLAR BILL. THIS WOULD ONLY HAPPEN IF THE NEW ONE DOLLAR COIN IS APPROVED. WOULD YOU BE IN FAVOR OF ABOLISHING DOLLAR BILLS AND REPLACING THEM WITH DOLLAR COINS OR NOT?
BASED ON THOSE WHO FAVOR THE NEW ONE DOLLAR COIN

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	252	153	99	117	79	55	121	27	94	130	51	79
WEIGHTED BASE	411	242	168	190	126	93	225	67	158	184	82	102
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ABOLITION OF THE ONE DOLLAR BILL												
YES, ABOLISH DOLLAR BILLS	178	98	80	83	51	42	87	24	63	91	40	52
	43.4	40.6	47.5	43.8	40.7	45.7	38.6	35.3	40.0	49.7	48.8	50.4
NO, WOULD NOT FAVOR	212	134	78	92	72	48	124	39	84	87	41	46
	51.7	55.3	46.5	48.6	57.3	51.1	54.9	58.7	53.3	47.4	49.8	45.5
NOT SURE/DON'T KNOW	20	10	10	14	3	3	15	4	11	5	1	4
	4.9	4.1	6.0	7.6	2.0	3.2	6.5	6.0	6.7	2.9	1.3	4.1

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BASED ON THOSE WHO FAVOR THE NEW ONE DOLLAR COIN

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	252	50	51	101	30	133	103	56	59	88	49
WEIGHTED BASE	411	91	90	182	44	199	154	105	84	135	87
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ABOLITION OF THE ONE DOLLAR BILL											
YES, ABOLISH DOLLAR BILLS	178	41	38	79	20	93	73	56	36	55	31
	43.4	44.4	42.3	43.4	44.3	46.7	47.4	53.6	43.4	40.5	35.7
NO, WOULD NOT FAVOR	212	40	48	88	24	101	78	46	39	73	55
	51.7	43.6	53.7	48.6	53.5	51.1	50.4	43.3	46.5	54.1	63.1
NOT SURE/DON'T KNOW	20	11	4	15	1	4	3	3	8	7	1
	4.9	11.9	4.1	8.0	2.3	2.2	2.2	3.1	10.0	5.4	1.3

THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

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APRIL, 1990

••• ONE-CENT COIN STUDY •••

BANNER 1
BASED ON TOTAL RESPONDENTS

		SEX		AGE			EDUCATION					
	TOTAL	MALE	FEMALE	18-34	35-49	50 & OLDER	TOTAL: NO COLLEGE	LESS THAN H.S. GRAD.	H.S. GRAD.	TOTAL: COLLEGE	COLLEGE INC.	COLLEGE GRAD.
TOTAL RESPONDENTS	750	374	376	264	219	257	371	82	289	374	163	211
WEIGHTED BASE	1218	587	631	442	338	423	695	206	488	515	246	269
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
SEX												
MALE	587	587	-	231	173	180	319	104	216	262	121	140
	48.2	100.0	-	52.4	51.1	42.5	46.0	50.3	44.1	50.8	49.2	52.2
FEMALE	631	-	631	211	165	243	375	103	273	254	125	129
	51.8	-	100.0	47.6	48.9	57.5	54.0	49.7	55.9	49.2	50.8	47.8
AGE												
18 - 34	442	231	211	442	-	-	243	42	201	199	113	86
	36.3	39.4	33.4	100.0	-	-	35.0	20.4	41.1	38.6	45.7	32.1
35 - 49	338	173	165	-	338	-	163	34	129	175	71	104
	27.8	29.4	26.2	-	100.0	-	23.5	16.7	26.4	33.9	28.7	38.7
50 & OLDER	423	180	243	-	-	423	285	130	155	134	61	73
	34.8	30.7	38.6	-	-	100.0	41.0	62.9	31.8	26.1	24.8	27.2
EDUCATION												
TOTAL - NO COLLEGE	695	319	375	243	163	285	695	206	488	-	-	-
	57.1	54.4	59.5	55.0	48.3	67.3	100.0	100.0	100.0	-	-	-
LESS THAN HIGH SCHOOL GRADUATE	206	104	103	42	34	130	206	206	-	-	-	-
	17.0	17.7	16.3	9.6	10.2	30.7	29.7	100.0	-	-	-	-
HIGH SCHOOL GRADUATE	488	216	273	201	129	155	488	-	488	-	-	-
	40.1	36.7	43.2	45.4	38.1	36.6	70.3	-	100.0	-	-	-
TOTAL - COLLEGE	515	262	254	199	175	134	-	-	-	515	246	269
	42.3	44.6	40.2	45.0	51.7	31.7	-	-	-	100.0	100.0	100.0
COLLEGE INCOMPLETE	246	121	125	113	71	61	-	-	-	246	246	-
	20.2	20.7	19.8	25.5	20.9	14.4	-	-	-	47.8	100.0	-
COLLEGE GRADUATE	269	140	129	86	104	73	-	-	-	269	-	269
	22.1	23.9	20.4	19.5	30.9	17.3	-	-	-	52.2	-	100.0

THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

925064
APRIL, 1990

*** ONE-CENT COIN STUDY ***

BANNER 1
BASED ON TOTAL RESPONDENTS

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	306	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
SEX											
MALE	587	137	128	265	89	279	191	147	145	174	121
	48.2	40.5	46.4	43.1	51.5	55.3	57.2	47.9	48.2	47.7	49.3
FEMALE	631	201	148	349	83	226	142	159	156	191	124
	51.8	59.5	53.6	56.9	48.5	44.7	42.8	52.1	51.8	52.3	50.7
AGE											
18 - 34	442	104	105	208	83	200	117	115	112	130	85
	36.3	30.8	37.8	34.0	48.1	39.6	35.2	37.7	37.1	35.5	34.7
35 - 49	338	51	72	123	58	192	134	91	81	100	66
	27.8	15.3	26.0	20.1	34.0	38.1	40.2	29.9	26.7	27.4	26.9
50 & OLDER	423	179	100	279	31	109	79	97	104	133	90
	34.8	53.1	36.1	45.5	17.8	21.6	23.6	31.7	34.4	36.3	36.7
EDUCATION											
TOTAL - NO COLLEGE	695	256	193	449	82	184	102	181	175	219	119
	57.1	75.9	69.9	73.2	47.8	36.5	30.7	59.1	58.2	60.1	48.6
LESS THAN HIGH SCHOOL GRADUATE	206	128	57	185	-	10	10	48	46	79	32
	17.0	38.0	20.7	30.2	-	2.1	3.1	15.7	15.4	21.8	13.2
HIGH SCHOOL GRADUATE	488	128	136	264	82	174	92	133	129	140	87
	40.1	37.9	49.2	43.0	47.8	34.5	27.6	43.3	42.8	38.3	35.4
TOTAL - COLLEGE	515	79	83	162	90	320	231	124	123	144	124
	42.3	23.3	30.1	26.4	52.2	63.5	69.3	40.6	40.8	39.5	50.6
COLLEGE INCOMPLETE	246	51	43	94	57	146	89	53	54	75	65
	20.2	15.2	15.4	15.3	32.9	28.9	26.8	17.2	17.8	20.5	26.6
COLLEGE GRADUATE	269	27	40	68	33	175	141	72	69	69	59
	22.1	8.1	14.7	11.0	19.3	34.6	42.5	23.4	23.0	19.0	24.0

THE GALLUP ORGANIZATION, INC.
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••• ONE-CENT COIN STUDY •••

BANNER 2
BASED ON TOTAL RESPONDENTS

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	306	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ANNUAL HOUSEHOLD INCOME											
UNDER $20,000	337	337	-	337	-	-	-	80	78	122	58
	27.7	100.0	-	55.0	-	-	-	26.1	25.8	33.3	23.6
$20,000 - $29,999	276	-	276	276	-	-	-	65	87	75	49
	22.7	-	100.0	45.0	-	-	-	21.3	28.9	20.5	19.9
TOTAL UNDER $30,000	613	337	276	613	-	-	-	145	165	196	107
	50.4	100.0	100.0	100.0	-	-	-	47.4	54.7	53.8	43.5
$30,000 - $39,999	172	-	-	-	172	172	-	48	41	48	35
	14.1	-	-	-	100.0	34.1	-	15.6	13.5	13.3	14.3
TOTAL $30,000 AND OVER	505	-	-	-	172	505	333	135	113	137	120
	41.5	-	-	-	100.0	100.0	100.0	44.3	37.5	37.5	48.6
$40,000 AND OVER	333	-	-	-	-	333	333	88	72	86	84
	27.3	-	-	-	-	65.9	100.0	28.7	24.0	24.2	34.3
REGION											
EAST	306	80	65	145	48	135	88	306	-	-	-
	25.1	23.7	23.6	23.6	27.7	26.8	26.4	100.0	-	-	-
MIDWEST	301	78	87	165	41	113	72	-	301	-	-
	24.7	23.0	31.6	26.9	23.7	22.4	21.8	-	100.0	-	-
SOUTH	365	122	75	196	48	137	88	-	-	365	-
	30.0	36.1	27.1	32.0	28.2	27.1	26.5	-	-	100.0	-
WEST	246	58	49	107	35	120	84	-	-	-	246
	20.2	17.2	17.7	17.4	20.5	23.7	25.3	-	-	-	100.0

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THE GALLUP ORGANIZATION, INC.
PRINCETON, NEW JERSEY

••• ONE-CENT COIN STUDY •••

BANNER 2
BASED ON TOTAL RESPONDENTS

		ANNUAL HOUSEHOLD INCOME						REGION			
	TOTAL	UNDER $20K	$20K TO < $30K	TOTAL UNDER $30K	$30K TO < $40K	TOTAL $30K AND OVER	$40K AND OVER	EAST	MID-WEST	SOUTH	WEST
TOTAL RESPONDENTS	750	189	166	355	106	332	226	169	214	231	136
WEIGHTED BASE	1218	337	276	613	172	505	333	306	301	365	246
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ANNUAL HOUSEHOLD INCOME											
UNDER $20,000	337	337	-	337	-	-	-	80	78	122	58
	27.7	100.0	-	55.0	-	-	-	26.1	25.8	33.3	23.6
$20,000 - $29,999	276	-	276	276	-	-	-	65	87	75	49
	22.7	-	100.0	45.0	-	-	-	21.3	28.9	20.5	19.9
TOTAL UNDER $30,000	613	337	276	613	-	-	-	145	165	196	107
	50.4	100.0	100.0	100.0	-	-	-	47.4	54.7	53.8	43.5
$30,000 - $39,999	172	-	-	-	172	172	-	48	41	48	35
	14.1	-	-	-	100.0	34.1	-	15.6	13.5	13.3	14.3
TOTAL $30,000 AND OVER	505	-	-	-	172	505	333	135	113	137	120
	41.5	-	-	-	100.0	100.0	100.0	44.3	37.5	37.5	48.6
$40,000 AND OVER	333	-	-	-	-	333	333	88	72	88	84
	27.3	-	-	-	-	65.9	100.0	28.7	24.0	24.2	34.3
REGION											
EAST	306	80	65	145	48	135	88	306	-	-	-
	25.1	23.7	23.6	23.6	27.7	26.8	26.4	100.0	-	-	-
MIDWEST	301	78	87	165	41	113	72	-	301	-	-
	24.7	23.0	31.6	26.9	23.7	22.4	21.8	-	100.0	-	-
SOUTH	365	122	75	196	48	137	88	-	-	365	-
	30.0	36.1	27.1	32.0	28.2	27.1	26.5	-	-	100.0	-
WEST	246	58	49	107	35	120	84	-	-	-	246
	20.2	17.2	17.7	17.4	20.5	23.7	25.3	-	-	-	100.0

Senator DIXON. Well, I want to thank you, Mr. Lombra, and I want to tell you that we'll use your information in support of the amendment I offer to take out the part about study on doing away with the penny.

Everybody in America I think is smart enough to know that they're not going to round down.

Mr. Benfield, if I may, I was interested very much in some of your show'n tell. Let the record show for everybody that's still in attendance that I returned your cupful of coins. You've counted that carefully, I know, and found all the coins there.

Do you feel that we have to eliminate the dollar bill to have any acceptance at all of the dollar coin?

Mr. BENFIELD. Yes. And there's one final point. I was saving the best until last. Can I have another 90 seconds just to show a small thing?

Senator DIXON. Why, sure.

Mr. BENFIELD. In my opinion, the American public is nervous about a dollar coin for a very simple reason—every cash transaction that is made is a variation of one of these five.

In other words, you need $1, $2, $3, $4 bills, or no dollar bills, to complete a transaction. It's because of this 5:1 multiplier. It's the only point in our cash system that you only need 2 $5's for a $10. And we go $10, $20, $50.

So if you sat at a cash register all day long, you'd see an average of $2 bills going back and forth. So they take out their wallet, they see that many dollar bills and say, my gosh, I don't want to carry all those dollar coins. And that's where the whole debate is. The public needs a choice. [Demonstrates with $1 coins and $2 bills.]

What we suggest is that a $2 bill does belong in place. So now you have—here's your $1 purchase, here's two, here's three, here's four, and here's something divisible by five.

Instead of having 10 $1 bills out in front of you, you now have 2 $1 coins. Less than half of the time you're going to need a dollar coin and the most you'll ever need is one.

So our point is, if you'll accept the $2 note as the choice, and there's room for it in the cash register because the one's gone—and it's got Tom Jefferson and the signing of the Declaration of Independence—if we can use this as the alternative, everything is possible. If you insist on the $1 note, nothing is possible.

But I think this demonstration shows that the people really will maintain a choice, those who prefer paper will have a choice, but the dollar bill will block the $2 bill from the cash register.

Senator DIXON. Well, I thank you, Mr. Benfield.

Mr. Bradley, your opinion?

Mr. BRADLEY. Yes, Mr. Chairman. I'd just like to say one thing in conclusion. In the past 10 years, the American public has seen the $1 coin and the $2 bill come on the scene. They have unanimously rejected both.

At this particular time, we see no need to introduce either one.

Senator DIXON. And I take it, Mr. Lombra, you're mostly concerned about the cent question and not so much about the dollar.

May I just say, I appreciate the attendance of all of you. We appreciate your contribution to this mild debate about what we ought to do about the American currency system.

I can assure everybody in the audience, we're not going to do away with the penny. You can leave this room with that assurance. And I regret to advise all of you who say that we must mandate elimination of the dollar bill, we're not going to do that. So we may have a dollar coin come out of this committee and we may not, but we're not going to have a dollar coin, in my view, come out of this committee to supplant the dollar bill.

But we appreciate very much this testimony. The committee will now, in its due course, consider a mark-up of this issue.

Thank you very much for coming here today.

This committee meeting is adjourned.

[Whereupon, at 3:04 p.m., the committee was adjourned.]

The following statement submitted by the American Bankers' Association is an analysis of an informal survey. This does not purport to be a definitive conclusion. The purpose was to solicit ways in which banks might be affected if S. 814 or its House counterpart were passed.

THE U.S. BANKING INDUSTRY AND THE EFFECTS OF PROPOSED CURRENCY REFORM

An Analysis by the American Bankers Association*

April 23, 1990

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* These findings represent consensus derived from an ad hoc survey of the Operations & Automation, and the Retail Payment Services Committees of the American Bankers Association. The contributing committee members were asked how the various currency reform bills pending in Congress would affect their bank operations.

Introduction:

If enacted, currency reform proposals pending in Congress will create a new, circulating One Dollar coin (S. 814), might replace the One Dollar note with a coin (H.R. 1068), and would require the U.S. Treasury to study a plan to end production of the penny and institute a scheme whereby all final sales will be rounded up or down to the nearest nickel. These currency reforms could have dramatic and far-reaching effects on U.S. commerce and we expect consumers will react negatively. In its key role as provider of currency to the marketplace, the banking industry will incur costs, both initially and on an ongoing basis, that are unlikely to be offset by savings to either consumers or the banking industry.

Beyond the substantial costs associated with educating and promoting currency reform to the general public, the banking industry will incur numerous operational costs in the areas of retail services and commercial currency processing. To some extent, our customers will ultimately bear much of these costs. To the extent they do not, bank profitabilty will suffer. There will be few cost savings for banks from either a new dollar coin or the penny's withdrawal.

Effects on Costs From One Dollar Coin/Phase-out of Penny:

- 1,000 One Dollar notes weigh approximately 3 lbs. 1,000 One Dollar coins will weigh approximately 17 lbs.; more than 5 times as much. With processing costs based largely on weight conveyed and labor involved, the increase in costs could be substantial. It will certainly take more labor to move 1,000 coins as opposed to 1,000 notes. Workers' compensation and other liabilities might also increase for injuries related to handling heavier loads.

- A large western bank with high-volume currency processing operations estimates its currency transportation costs will increase approximately 25% (an increase of over $400,000 annually) if a coin replaced the One Dollar note; the cost could be higher if it circulates alongside the note. Other banks estimate as much as a doubling in transportation costs.

- Banks will realize only minimal savings from having to deliver fewer One Dollar notes to the Federal Reserve for destruction, since these trips must be made for other reasons as well. These savings will be completely lost if a Two Dollar note is reintroduced.

- Banks receiving wrapped coins from their Federal Reserve Bank must pay for the service, whereas strapped notes do not entail a cost. For example, the Federal Reserve Bank of Cleveland charges $1.55 per box of 1,000 wrapped Susan B. Anthony coins.

- Storage costs, which are also based in part on weight and labor, could rise dramatically. This will be the case even if coins do not take up more space relative to notes.

- Cash drawers will probably need replacement to handle additional coin/currency, at least during the transition period when the additional dollar coin will not be offset by withdrawal of the penny or One Dollar note.

- Few machines used by banks to count, sort, wrap, or dispense coins can currently handle a dollar coin. Thus, most existing cash processing machines will need to be retrofitted or replaced, entailing substantial costs. Moreover, some ATM machines can now cash customer checks or electronic deposits of government benefits to the penny. These, too, will need to be retrofitted or replaced in order to dispense One Dollar coins. Also, dollar coin accepting machines might be made necessary to limit additional labor costs associated with verifying the accuracy of large dollar coin deposits/exchanges.

- Bank forms used to order, exchange or deposit currency will probably have to be redesigned at some expense to banks. New wrappers for One Dollar coins that are more durable, and probably more expensive, than the "straps" currently used to wrap notes will also be necessary, as will stronger bulk-handling bags.

Effects on Costs Related Specifically to Phase-out of Penny:

- Teller time will increase if the penny is eliminated to ensure that proper rounding is applied to cash transactions and, when necessary, to handle customer inquiries or complaints of unfavorable rounding.

- Rounding will require major and costly changes to how checks and other non-currency instruments are processed and reconciled within the industry. The eductation burden alone, both of the customer base and of bank employees, will be substantial.

- Postal costs could rise for the banking industry, a major user of the mails, if rounding leads to future postal rate increases in increments of $0.05, rather than the more traditional $0.02 - $0.03.

- Some currency processing savings are possible if pennies and half-dollars are phased out of active circulation since they will no longer need to be transported/stored. However, aggregate market demand for both coins is significantly lower than for dollar notes so these savings will be far less than the additional processing costs associated with dollar coins.

RESPONSE TO WRITTEN QUESTIONS OF SENATOR DIXON FROM

L. NYE STEVENS

Q. 1: Your report indicates an average annual savings of $318 million over a thirty year period. What would the savings be in the first 2-3 years? What will the disposition of the Susan B. Anthonys do to the cost savings estimate? If the public rejects the new coin, how much is at risk during this introductory phase?

We calculated that if a dollar coin replaced a dollar note, the government would lose about $80 million in the first year, save about $13 million in the second year and $68 million in the third year, in present value dollars. The savings would continue to increase, averaging $318 million over the 30 year period.

We did not believe the destruction of the Susan B. Anthony dollar coins was necessarily related to the production of a new dollar coin and our analysis did not incorporate destruction costs of the Susan B. Anthony coins. However, if the Susan B. Anthony coins that currently are in storage are destroyed, this would offset savings resulting from a dollar coin. Mint officials said it would cost approximately $8 million to melt down the Susan B. Anthony coins in storage. Additionally, they said they would have to deduct the $415 million in seigniorage already taken on the stored coins from any seigniorage made on future coins.

If the public rejects a dollar coin during the introductory phase, we estimate that the government's lost investment would be in the range of $12 to $17 million. The major start-up cost items would be $8 to $10 million for expansion of the Mint's presses and die-casting capacity, and $4 to $6 million in a public awareness campaign.

Q.2: Would you not recommend that Congress pass this legislation if no provision were included to eliminate the dollar note?

We would not so recommend. As our testimony documents, if given a choice between a dollar coin and a dollar note, the public will use the dollar note, which would render a dollar coin unsuccessful. If this happens, the government would not benefit financially or otherwise from the introduction of a dollar coin. The private sector would also face confusion and extra costs stemming from its investment in the change over to a coin. To the extent that private sector bankers and vending machine companies doubt the government's commitment to a dollar coin, their own commitment will also be reduced.

Q 3: Did the majority of vending machine operators (and others involved in coin operated machinery) polled indicate that their machines would need to be retrofitted to accept the dollar coin? At what cost? Would their prices then increase?

The National Automatic Merchandising Association (NAMA), which is the national trade association of the merchandise vending industry, said it would support a new dollar coin only if vending machines could accept the new coin with little or no retrofitting. It said about 50 percent of vending machines can accept the Susan B. Anthony coin; for that reason, any new dollar coin would need to be similar to the Susan B. Anthony in size, weight, and metal content. NAMA reported that if the new dollar coin is significantly different from the Susan B. Anthony coin and requires significant retrofitting of vending machines, the vending industry would not support the dollar coin.

Q. 4: Your testimony states that the government did not manage the introduction of the Susan B. Anthony coin effectively. What are some suggestions for increasing public acceptance of a new dollar coin?

The key factor for ensuring public acceptance of a new dollar coin is the elimination of the dollar note. Only when the note is eliminated will the public accept a dollar coin. In that regard, Congress and the Administration must stand firm in their decision to eliminate the note, despite negative public reaction. Additionally, there should be a reasonable period of transition from the dollar note to a coin, and the coin itself should be aesthetically pleasing and commercially useful. Prior to and during the transition period, there should also be a sophisticated public awareness campaign, which could include coordinating the coin's appearance, utilization, and introduction with those sectors that would be most affected by the coin and advertising the coin's beneficial uses. In the long run, if our experience parallels that of other countries, opposition should diminish as the coin becomes more common and eventually it will not be controversial.

Q. 5: Your study says, "Some government savings will come at the expense of additional costs being borne by the private sector, such as additional coin processing and transportation costs." Which part of the private sector would be affected and how?

The American Banking Association (ABA), reported that it would incur substantial costs with educating and promoting currency reform to the general public, as well as numerous operational costs in the areas of retail services and commercial currency processing. It said these additional expenses would be incurred primarily because coins are more costly to prepare, process and

transport and these costs would far outweigh any savings it would gain from handling fewer one dollar notes. It reported that, to some extent, customers would ultimately bear many of these costs, and to the extent they did not, bank profitability would suffer.

Additionally, most armored car carriers we contacted said they charge banks an additional fee for transporting coins, as coins are heavier to transport and require additional equipment and personnel to handle. Some carriers said they also wrap loose coins into rolls for banks, for which they charge an additional fee. The carriers said additional coin loads would increase their costs, and, in turn, increase their fees to banks, which banks would ultimately pass on to their customers.

RESPONSE TO WRITTEN QUESTIONS OF SENATOR DIXON FROM

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Citizens Against Government Waste
Coin Laundry Assn.
Copper and Brass Fabricators Council
Copper Development Assn.
Foodservice & Lodging Institute
International Association of Amusement Parks & Attractions
Italo American National Union
Multi-housing Laundry Assn.
National Association of Concessionaires
National Association of Convenience Stores
National Automatic Merchandising Association
National Campground Owners Association
National Coffee Service Association
National Parking Assn.
National Soft Drink Assn.
Public Telephone Council
RP Foundation Fighting Blindness
Randolph-Sheppard Vendors of America (blind vendors)
Smarte Carte Inc.
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COIN COALITION
answers to questions for the record
from the June 20, 1990 hearings before the
Committee on Banking, Housing and Urban Affairs
United States Senate

1. A significant part of the dollar coin's appeal would be its convenience when using coin operated machines. Has the Coin Coalition done any studies or tests to determine the acceptability of a dollar coin in vending machine, phones, etc?

[The National Automatic Merchandising Association prepared the answers to questions 1 and 2.]

Canada predominately uses U.S. vending equipment and coin mechanisms designed for the Susan B. Anthony dollar with their new $1 coin. An increasing number of U.S. vending operators are infusing Anthony coins into some of their largest vending locations (factories, offices, etc.) with significant success and customer satisfaction.

While the Anthony coin has failed to circulate, the U.S. vending industry has committed itself heavily to the prospect of a circulating $1 coin with Anthony coin operating specifications:

- Of the two major manufacturers of coin mechanisms for vending machines, one reports that since 1982 its entire production takes the Anthony coin, the other 95% since 1988.
- The three major manufacturers of vending machines estimate that 65 to 75% of equipment shipped to them in the past 8 to 10 years have coin mechanisms capable of accepting the Anthony coin.
- The three largest vending companies report that they operate approximately 250,000 vending machines, and of these over 75% are equipped to handle the Anthony coin. This is substantially true for most vending companies, although the overall industry average may be closer to 50%.

2. Would retrofitting machines to accept the coin be costly to the industries that the Coin Coalition represents? Would enough machines be ready by the time the dollar coin is introduced?

As noted above, most U.S. vending operators have been preparing for the Anthony dollar since the early 1980's, so the industry has been substantially ready for the Anthony coin for some time. Most vending operators would welcome retrofitting most machines that do not already accept the Anthony coin and could accomplish the conversion fairly rapidly. It would be a far less costly alternative to continued installation and operation of bill acceptors.

However, conversion of vending machines to accept a new dollar coin with different operating specifications than the Anthony coin could be most costly and possibly require the replacement of more than a million existing coin mechanisms. This circumstance could result in a conversion period extended over many years because of the additional sizeable capital investment required.

The capital intensive vending industry operates on very narrow profit margins with marginal returns on investment in assets. If the widespread existing Anthony coin capability and technology were made obsolete by a new coin of "unworkable" specification, many smaller businesses and some larger ones might eventually withdraw from the industry. Survivors would be forced to increase selling prices to offset the sizeable additional capital investments required.

3. A Gallup poll, commissioned by Americans for Common Cents, shows that 59% of the public opposes a new dollar coin. Have you done any polling that suggests the public would react favorably to a dollar coin which is more distinguishable from the quarter than the Susan B. Anthony?

The Coin Coalition has seen no need to conduct any polls regarding a coin distinguishable from a quarter because Canada has provided an extraordinary opportunity to study the successful introduction of a gold-colored $1 coin with the same 26.5 mm diameter as the Susan B. Anthony dollar coin. The Canadian coinage system has pennies, nickels, dimes and quarters that closely resemble our coinage system. The population is equally diverse, including a major sector for whom English is a second language.

In March, 1987, four months before the introduction of their "loon" $1 coin, only 22% of the Canadian public favored replacing their $1 note. When the coin appeared on July 1, 1987, approval rating soared to 52%. Several months later, approval fell to 39%. Officials at the Royal Canadian Mint say that a third of the public likes the coin, a third dislikes the coin, and a third don't really care. However, a Royal Canadian Mint report released May 10, 1989 said "Regardless of individual preferences about the coin, most people **(96 percent) are willing to accept it** or claim not to have refused it; in other words, they use it as they would any other coin." [emphasis added]

The General Accounting Office writes that the introduction of a high-denomination coin is seldom popular with the general public. But once the coin is introduced, the public accepts the coin.

The zinc industry (American for Common Cents), which sponsored the Gallup Poll, had a vested stake in maintaining the status quo. Thus, their statements and questions contained no information about the benefits of coinage reform.

A reader survey conducted in January, 1989, by Coin World asked two key questions about the $1 coin. "Do you favor issuance of a small-sized dollar coin? (70.5% yes; 29.5% no) and "If the U.S. issues a small-sized dollar coin, do you favor a phased withdrawal of the paper bills?" (62.5% yes; 37.5% no) These questions were preceded with information saying the government would save more than $50 million annually, and most countries which have been successful in introducing a coin have withdrawn the equivalent note over a two to three year span.

Having been a guest on dozens of radio talk shows, I have found that listener response runs about 60% to 40% in favor of the dollar coin. The calls come after a 10 to 15 minute interview by the host of the program during which time the benefits of a $1 coin are explained.

The dozens of newspaper editorials suggest that reasonable people will support coinage reform when the facts are presented and when they understand that the $2 bill is an alternative to the $1 coin.

Thus, the Canadian example, the Coin World survey, radio talk shows, and editorial opinions all demonstrate that when the public is informed, they support replacing the $1 bill with a $1 coin. The use of a $2 bill would further reduce opposition.

4. The same poll also shows that only 15% would support replacing the dollar note with the coin. The General Accounting Office (GAO) report states that the success of the dollar coin is contingent upon the elimination of the dollar note and reintroduction and use of the two dollar note. What support do you see for the elimination of the dollar note? For the reintroduction and use of the two dollar note?

Support for the elimination of the $1 note comes from every member of the Coin Coalition. Co-circulation of both a $1 note and a $1 coin is the worst case scenario for the cash retail industry and for mass transit, because they would have to count, sort and process two forms of the same denomination. For the visually handicapped, the continued circulation of the $1 note provides no security against being cheated in cash transactions.

Australia and Canada experienced a surge in popularity for the $2 note following introduction of their $1 coins. The $2 bill was thought to be unlucky in the northern great plains of Canada, much as it is in the United States. With many Americans stating their preference for paper, the Coin Coalition believes this preference would be exercised. The GAO predicts a 25%

replacement of $1 bills with $2 bills. The Coin Coalition feels the U.S. Mint projection of 40% is a more accurate prediction. The theoretical maximum is 80%.

5. The GAO report shows a cost savings figure of $138 million annually if a dollar coin were to replace the dollar bill. If S. 814 passed as it reads today, the dollar note would circulate concurrently. What kind of savings would we see then?

If S. 814 were to pass in its present form, there would be no savings to the government. In fact, there could be unrecoverable government expenses. This could result for two reasons:

1) If Anthony dollars were melted down on a one for one basis with the new coins, there would be no seigniorage windfall for the Treasury on the first 400 to 800 million coins produced, depending on how many of the 400 million Anthony dollars in circulation are returned to the government. Total production of the new $1 coin might not exceed one billion coins, because it would not circulate.

2) Additionally, if the metallic alloy of the new coin deviates slightly from the Anthony dollar, the new coin could not circulate in existing coin mechanisms. Thus, the new $1 coin would be rejected in favor of the Anthony by the transit systems and vending operators now using the Anthony dollar. The stock of Anthony dollars would eventually be depleted, only to be replaced in storage vaults by the new dollar coin. If the Anthony coins were melted down, coin mechanisms of entities now using the Anthony dollar would have to be replaced. The result would be high costs for these companies and no savings for the government.

Perhaps 50 to 100 million new $1 coins would be horded by collectors. With that exception, the coin would not circulate. The Coin Coalition agrees with the GAO and the Mint that the $1 bill must be removed. However, the Coin Coalition advocates replacing the $1 bill with the $2 bill.

6. Is the Coin Coalition committed to a public relations campaign to promote the one dollar coin should this legislation become law? How much are you willing to spend and in what ways?

Each member of the Coin Coalition is prepared to promote the coin within its industry. Because most coin mechanisms are already in place, the coin will be accepted immediately.

With the phased removal of the $1 note, the $1 coin is assured of succeeding. Thus, the primary purpose of a public relations campaign is to explain the reasons for the change to lessen the expected public resistance from the "vocal one-third."

The sector of the economy that will have to make the greatest adjustment is the cash retail sector that employs cash registers.

The Coin Coalition will focus its efforts on press briefings, radio talk shows, trade association conventions. This effort would cost between $300,000 and $400,000 over a two year period. Individual members of the Coin Coalition will spend considerably larger sums to promote the coin.

7. According to your testimony, Susan B. Anthony dollars are being used for public transportation and hence the surplus supply has been decreased by millions of dollars. Are most buses and subway stations equipped to handle dollar coins or only a select few? You also mention in your testimony that United Parcel Service [sic.] has plans to use the Anthony coin. What exactly are those plans and when will they begin?

According to Dan M. Reichard, Vice President for Sales of General Fairbox, Inc. in Elk Grove Village, Illinois, 90% of the nation's 57,000 buses currently can accept an Anthony-sized coin. Buses in the Chicago Transit Authority accept Anthony dollars, and the CTA receives a few every day.

In a letter dated July 12, I suggested to Lory Breneman, Chief Clerk, that the U.S. Postal Service be contacted directly to answer this part of question 7.

RESPONSE TO WRITTEN QUESTIONS OF SENATOR DIXON FROM

Dr. Raymond Lombra

Q.1. Would merchants willingly round cash sales up or down equitably? Or would legislation be needed to determine rounding?

Given the current structure of prices in America, there is little doubt that net rounding up would result from virtually any reasonable rounding scheme. Would firms be willing to change their pricing strategies voluntarily so as to produce no net rounding? I think not. A fundamental building block in economics is that firms price their goods and services consistent with their objectives regarding growth, profits, market share, and so forth. A corollary is that any arbitrary changes in prices from this optimum will have adverse effects on firms. An example is the prevalence of $0.99 pricing -- a device, as noted in my study, designed to control employee theft and to improve customer sales. Rounding would eliminate such benefits. Accordingly, firms would be very reluctant to give up the flexibility and benefits inherent in current pricing practices.

On the legislative front, The Price Rounding Act has already been introduced in the House (H.R. 3761). This bill stipulates that if the total, including tax, of a cash purchase ends in a 1, 2, 6, or 7, the resulting sum shall be rounded down to the nearest nickel, while if the total ends in a 3, 4, 8, or 9, the resulting sum shall be rounded up to the nearest nickel. My study suggests that such legislation will result in net rounding up. This conclusion follows from the skewed distribution of prevailing prices in America.

Amending this bill to force merchants to round equitably would require some type of enforcement mechanism, such as an excess-profits-from-rounding tax, and, more generally, would inject government into the economy's price mechanism. I would argue strongly against any such initiative. Communist governments have been "learning" for decades that interfering with the price mechanism is a slippery slope with cumulative adverse effects on resource allocation and economic performance. When functioning properly, the pricing mechanism transmits clear signals to buyers and sellers that, in turn, affect the incentives to borrow, lend, spend, save, work and produce, which are at the heart of a dynamic economy. Against this background, even a seemingly small interference with the price mechanism requires careful documentation and support of the alleged benefits; in this case, such a test has clearly not been met.

Q.2. In your testimony you state that the effect of the rounding "tax" on prices would be to increase government outlays indexed to prices by $1.5 billion. Please explain this.

Anything that pushes up the CPI will increase government outlays tied (formally or informally) to overall price changes. The Congressional Budget Office in its January 1990 report, The Economic and Budget Outlook: Fiscal Years 1991-1995, estimates that a one percentage point (0.01) increase in the inflation rate (which when reported is routinely multiplied by 100) beginning in January 1990 would raise Federal government outlays by $88 billion dollars by 1995 (Table II-9, p. 55 of CBO report). My conservative estimate of the rounding "tax" -- that is, $600 million per year -- translates into a rise of consumer prices of less than 2/100 of one percentage point; this is derived by dividing $600 million by the $3.5 trillion consumer spending at the end of 1989 (600 million ÷ 3.5 trillion = 0.00017 = 1.7/100 of one percentage point). Taken together, the CBO estimates of the effect of inflation on government outlays ($88 billion for every one percentage point over five years) along with my estimates of the effect of the rounding "tax" on prices (1.7/100 of one percentage point) translate into an extra $1.5 billion of government outlays ($88 billion multiplied by 1.7/100 = $1.496 billion).